

# Chemical Week—

December 26, 1953

Price 35 cents



► **Brownell's antitrust tack: crack down on violators but shun vindictiveness . . . . .** p. 11

**Take a hard look at '54; here's what's shaping up, what portends and why . . . . .** p. 16

**There's new hustle in bidding for defense business—and now it's simpler . . . . .** p. 32



► **Millions of Christmas trees, novel chemical treatments add up to a lush market . . . . .** p. 40

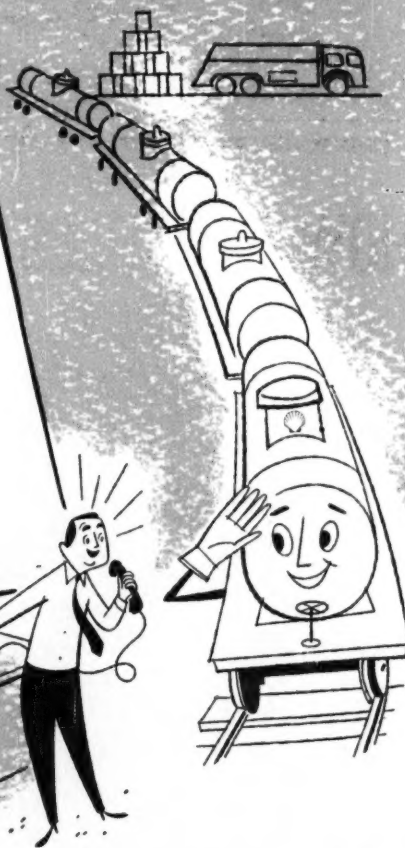
**Price jockeying, new synthetic capacity, molasses muddle—all snarl ethanol outlook . . . . .** p. 51

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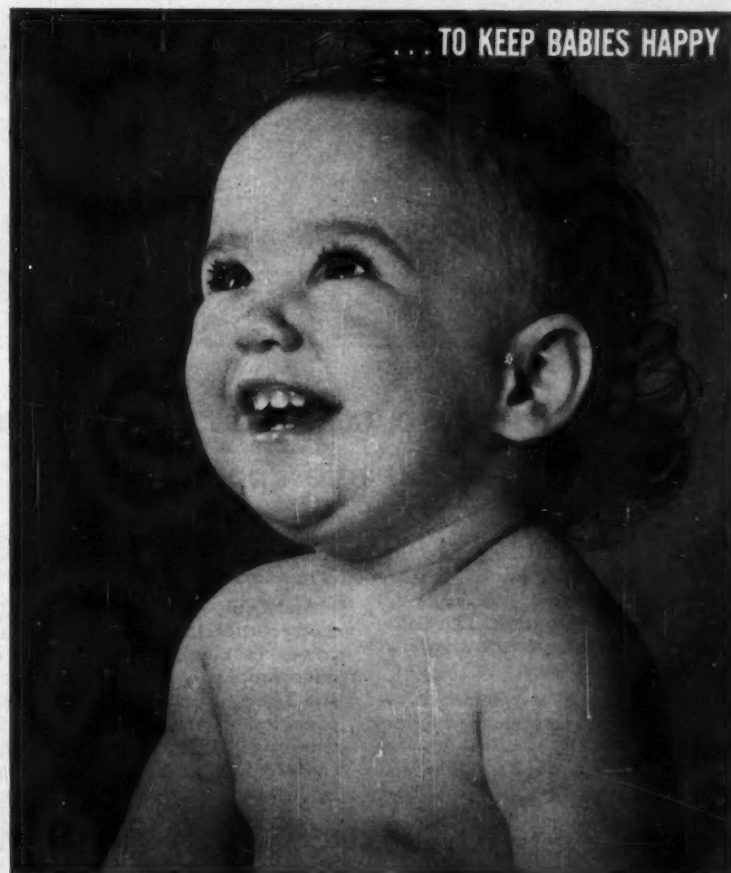
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FOR FINEST FILTRATION



# Chemical Week

Volume 73 • December 26, 1953 • Number 26

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December 26, 1953 • Chemical Week



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Furafil is a flowable, highly absorptive powder widely used to reduce caking.

## 2. BURN-OUT MATERIAL

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Furafil is a modified ligno-cellulose material, which is of value as a filler in phenolic resin molding powders and extender in phenolic resin adhesives.

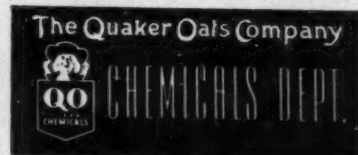
## 5. AVAILABLE

Furafil is produced throughout the year. It is shipped in bulk or in bags.

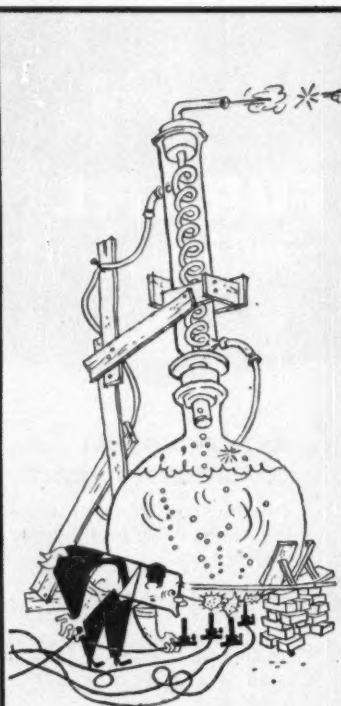
The above applications may suggest places in your processes where Furafil can be of help to you. Our sales staff will be happy to work with you in any applications you have in mind.

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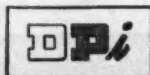


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## OPINION

### No Parallel

TO THE EDITOR: In your news article on the Carter-Colgate patent suit [concerned with push-button aerosol shave products] you refer to the doings of Mr. Norman Fine [as charged by Carter] and then state: "Reich, by the way, eventually joined Lever Bros." This has given some people the impression that the two cases are parallel . . .

I left Snell's to study for an advanced degree at USC. I joined Lever Bros. only three months ago. My work at Lever Bros. is completely unrelated to pressurized lathers and I have not transmitted any technical information about such products . . .

I would appreciate your printing this . . .

IRVING REICH  
Lever Bros.

Research and Development Div.  
Edgewater, N. J.

*Your quarrel, Reader Reich, is not with our reporting but with the inference some readers might draw. We are glad to print your statement.—Ed.*

### No Cause for Alarm

TO THE EDITOR: One might assume, and quite properly I should say, that, based on the tenor of your reporting of American chemical affairs, a number of chemical makers in your country are gripped by the fear that Great Britain is desirous of flooding the market with chemicals. The assumption seems to be, as far as one is able to gather, that it is both possible and practicable for us to manufacture chemicals at extraordinarily low cost and that we can transport these commodities to the U. S. and compete somewhat unfairly with your producers . . .

If one were to examine this, I should warrant that the premise would be found to be unsound; there are relatively few chemicals that our makers regard as eligible for trade with the U. S. . . . In numerous instances our costs are not abysmally below yours and this fact, considered in conjunction with the tariffs that normally obtain, precludes any great volume of trade on such commodities.

Most managing directors of British chemical corporations are not, in my own opinion, deluded into thinking that they can sell tonnages of their products in the U. S. . . .

It would behoove us, therefore, in my view, to endeavor to correct any misconception that the U. S. chemical

concerns might have on this matter . . . I should be forthright enough to acknowledge, nonetheless, that possibly our "trade, not aid" campaign has fostered, and mayhap even engendered, such a viewpoint.

However, on another score, we should not lightly dismiss the fact—nor even deny it—that we are eager and anxious to sell our goods in other countries and we acknowledge that we will indubitably vie with you for chemical commerce in many quarters of the globe . . .

KINGSLEY POTTER  
London, England

### Considerable Effects

TO THE EDITOR: . . . That was an interesting study you made (Nov. 21) of the effect the Industrial Council meeting had on the viewpoint of social science teachers . . .

Since the guests at the session on the chemical industry were a widely representative and influential group, we are pleased with the results . . . I am certain that the cumulative effects of the various sessions will be considerable . . .

RAY PALMER BAKER  
Director  
The Industrial Council  
Rensselaer Polytechnic Institute  
Troy, N. Y.

## DATES AHEAD

Commercial Chemical Development Assn., winter meeting, Statler hotel, St. Louis, Mo., Jan. 19.

Assn. of American Soap and Glycerine Producers, annual meeting, Waldorf-Astoria hotel, New York, N.Y., Jan. 26-28.

Chlorine Institute, Inc., annual meeting, Biltmore hotel, New York, N.Y., Jan. 27.

Drug, Chemical and Allied Trade Section, New York Board of Trade, annual dinner, Waldorf-Astoria hotel, New York, N.Y., March 4.

Chemical Institute of Canada, division of organic chemistry's third symposium, McGill Univ., Montreal, Ont., March 8-9.

CW welcomes expressions of opinion from readers. The only requirements: that they be pertinent, as brief as possible.

Address all correspondence to: W. A. Jordan, Chemical Week, 330 W. 42nd St., New York 36, N.Y.

# U.S.I. CHEMICAL NEWS

December 26



A Series for Chemists and Executives of the Solvents and Chemical Consuming Industries



1953

## NATIONAL PETRO-CHEMICALS \$45 MILLION PLANT OPENS



From  
U.S.I. CHEMICAL NEWS  
to its many readers,  
contributors, and associates

### Selector Takes Guesswork Out of Surfactant Choice

To take some of the laboratory trial-and-error out of building new emulsion formulas with surfactants, results of a manufacturer's experimentation are now available, condensed in the form of an automatic surfactant "selector". The instrument, a pocket-size twin dial arrangement, is said to offer emulsion formulators a precise surfactant recommendation for 96 different and specific formulation problems. Printed on durable card stock, the device measures 10% by 6% inches and is accompanied by full directions. The formulas chosen for use on the dials are typical and basic. Therefore, the surfactant recommendations indicated may be used as a guide in solving numerous other problems, the manufacturer states.

Surfactant applications covered on the instrument include: 18 types of cosmetic products, 9 pharmaceuticals, 22 cleaning or detergent formulations, 18 agricultural chemicals, 10 textile chemicals, and 20 miscellaneous industrial formulations such as polishes, lubricants, and soldering fluxes.

### New Carbon Black Reduces Glare on Concrete Roads

A new colloidal carbon black is expected to furnish the answer to road glare on many future concrete roads, according to a recent announcement. The obvious solution to road glare is to make the road dark in color. But in the case of concrete, carbon black (the most suitable pigment) neutralizes or counteracts the air-entrainment agents commonly used to make concrete more resistant to weathering. The new colloidal dispersion has been developed especially to overcome this difficulty, it is said. A six-page brochure is available describing the use of air-entrainment agents and carbon black, and shows the proportions needed to achieve various shades of color in roads, sidewalks, and floors.

### Dedication Ceremonies Held November 11

For Giant Industrial Chemicals Project of  
National Distillers and Panhandle Eastern

### Chemical Safety Charts

Five new chemical safety charts, designed to give all the important information on handling, storing and shipping hazardous chemicals at a glance, are now available. It has been announced. A similar previous chart covered sulfuric acid. The present five deal with nitric acid, hydrochloric acid and hydrogen chloride, anhydrous and aqueous ammonia, carbon tetrachloride, and chromic acid and chromates.

Text on the charts is simple, concise and printed so as to be easily read. They are 2 by 2½ feet in size and are intended for posting in plants, warehouses, laboratories, and wherever else the chemicals are handled or stored.

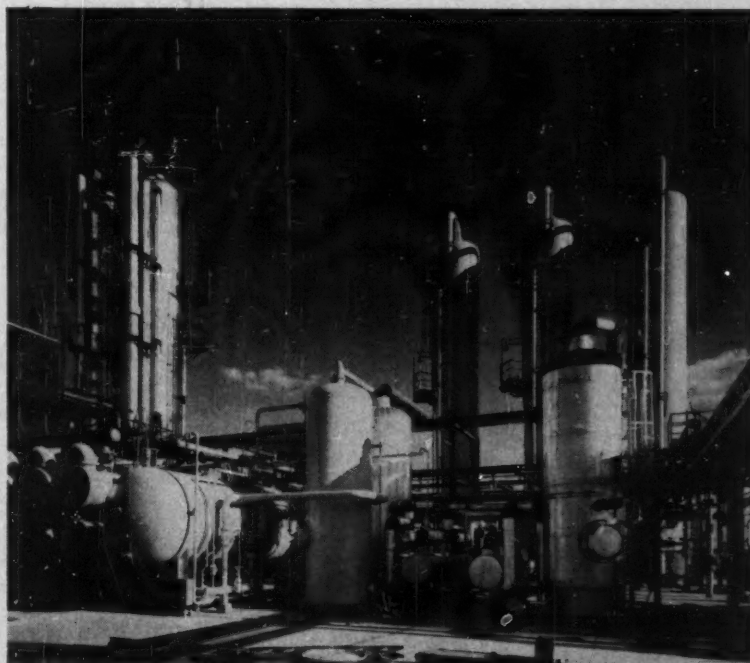
### U.S.I. Ammonia and Sulfuric Acid Plants Included in Project

November 11 marked the dedication of the new \$45 million National Petro-Chemicals Corp. plant at Tuscola, Illinois, where liquefied petroleum gases and industrial chemicals will be produced from natural gas. The giant plant is owned 60% by National Distillers Products Corp., which manages and operates it, and 40% by Panhandle Eastern Pipeline Co. It represents the greatest step so far taken by National Distillers in a long-range program to diversify its manufacturing operations.

### Seven Major Producing Units

Located on a 500-acre site,  
the new plant consists of seven  
major producing units:

**MORE**



Part of the new skyline near Tuscola, Illinois, above what two years ago was prairie cornfield country. The gigantic new National Petro-Chemicals plant is owned jointly by National Distillers Products Corp. and Panhandle Eastern Pipeline Co., and will be operated by National.



December 26

★

# U.S.I. CHEMICAL NEWS

★

1953

## CONTINUED

## Petro-Chemicals Operation

1. Hydrocarbon extraction and fractionation
2. Ethylene production
3. Ethyl alcohol production
4. Ethyl chloride production
5. Polyethylene production (under construction)
6. Sulfuric acid manufacture
7. Ammonia manufacture (under construction)

The hydrocarbon extraction and fractionation units are the largest in the world for the recovery of hydrocarbons from natural gas. When operating at full capacity, National Petro will process 400 million cubic feet per day of natural gas, which is pumped in from Panhandle Eastern's adjacent compressor station. It will have a daily output of approximately 500,000 gallons of natural gas liquids—propane, butane, isobutane, and natural gasoline. In addition, 10 million cubic feet per day of ethane will be recovered for conversion into ethylene.

### Largest Ethylene Unit Ever Built

Petro's ethylene plant, the largest single unit of its kind ever built, can turn out 200 million pounds a year. The ethylene will be used initially for the production of 40 million gallons of synthetic ethyl alcohol and 50 million pounds of ethyl chloride per year. Alcohol production will total about 25% of the country's previous synthetic output. Production of polyethylene is scheduled for the second quarter of 1955. Initial output will be about 25 million pounds per year, with further expansion scheduled for the ensuing two or three years. A substantial portion of Petro's production of all products has been contracted for under long-term agreement.

The natural gas liquids will be distributed by Phillips Petroleum Co. The propane and butane will be sold largely as liquefied petroleum gas under the familiar name "Philgas", a Phillips trademark. The isobutane production will go mostly into manufacture of components of high octane aviation gasoline. The natural gasoline will be sold to

oil refiners for blending into motor fuel.

### U.S.I. Plants Included in Project

Two new plants of National Distillers U.S.I. Chemicals Co. Division are also located on the Tuscola site and will be integral parts of the entire operation there. One plant is a \$2 million sulfuric acid plant which provides acid for the Petro alcohol manufacturing process. Sulfuric acid is also important to fertilizer manufacture. The other plant, still under construction, is a \$7 million unit to manufacture 50,000 tons of ammonia per year, some of which will be converted into nitrogen solutions widely used in fertilizer manufacture. Tuscola thus becomes one of the few places in the United States where both sulfuric acid and nitrogen solutions are produced.

### Major Contractors Involved

Design of the plant required a year and the services of 400 engineers and draftsmen. More than 2,000 craftsmen were needed to turn the complex plans into reality.

J. F. Pritchard & Co., Kansas City, Mo. designed and built the hydrocarbon extraction and fractionation units, the LPG storage tanks, the power house, water treating and waste disposal units, and general services. An underground propane storage cavern was constructed by MacLean, Grove & Co., Inc., New York.

The Lummus Company, New York, designed and constructed the ethylene plant. The alcohol plant was designed by the Vulcan Copper & Supply Co., Cincinnati, and built by the J. F. Pritchard Co. The ethyl chloride plant was designed and built by the Foster Wheeler Corp., New York.

National Lead Company, New York, designed the acid recovery plant. Administration buildings were designed by Syl. G. Schmidt & Associates, St. Louis, and built by Felmley-Dickerson Company, Bloomington, Ill.

Design and construction of the polyethylene and ammonia plants are in the hands of M. W. Kellogg Company, New York. L'Air Liquide Society, Montreal, is designing the hydrogen and air purification plants. Leonard Construction Company, Chicago, designed and built the sulfuric acid plant; and The Chemical & Industrial Corporation, Cincinnati, is designing and building the nitric acid and nitrogen solution plants.

## TECHNICAL DEVELOPMENTS

Information about manufacturers of these items may be obtained by writing U. S. I.

**Designed to prevent serious Christmas tree fires.** A glass globe filled with colored extinguisher decorates the top of the tree, breaks automatically at 160° F. to flood and put out any flash fire as soon as it starts. (No. 990)

**For stabilizing foods or synergizing food antioxidants.** A new product called "H-124" shows promise. It acts as a very mild acid acceptor, has excellent ultraviolet absorption characteristics and remarkably low mammalian toxicity. Should be especially useful in extending shelf life of foods exposed to light and air. (No. 991)

**For continuously measuring thickness variations** down to 5 millionths of an inch on paper, plastic sheeting, metal foil, etc., a new device is said to operate on ordinary air under pressure. (No. 992)

**A new home cleaner** reportedly removes dirt, tar, rust and oil from all types of hard surfaces including metals, linoleum, tile, painted surfaces, furniture, plastics and automobiles. (No. 993)

**Adjustable safety glasses**, said to fit 90% of all faces, permit easy replacement of lenses and have a double bridge design claimed to more than double the frame strength. (No. 994)

**An inorganic gelling and bodying agent** for lubricating greases with potential uses in paints, adhesives, rubber, inks, waxes, resins and insecticides, is described as a colloidal form of the mineral attapulgite with a strong, needle-like particle structure. (No. 995)

**To waterproof and revitalize shoes and other leather products**, an aerosol chemical spray is being marketed which is claimed to protect individual cells in the leather rather than to be a plastic coating. One container treats 24 pairs of shoes, the maker states. (No. 996)

**A new all-purpose electrical and metal degreaser** is reported to be about 12 times less toxic than carbon tetrachloride, to dry faster, and to be useful on natural and synthetic fabrics as well as metals. (No. 997)

**A new rubber film** can be electronically sealed to itself, is said to permit assembly of vessels of any size with welded seams stronger than the material itself. (No. 998)

**A new fast drying aluminum paint** can withstand 1200° F. temperatures without discoloring or blistering, can be used for plating burners, stoves, hot pipes, ovens, radiators, etc., according to the manufacturer. (No. 999)

## PRODUCTS OF U.S.I.

### ALCOHOLS

Amyl Alcohol (Isomyl Alcohol)  
Butanol (Normal-Butyl Alcohol)  
Fusel Oil—Refined  
Prepanol (Normal-Propyl Alcohol)

### Ethanol (Ethyl Alcohol)

Specialty Denatured—all regular and anhydrous formulas  
Completely Denatured—all regular and anhydrous formulas  
Pure—190 proof U.S.P., Absolute—200 Proof  
Solox®—proprietary solvent—regular and anhydrous

### ANTI-FREEZE

Super Pyro® Anti-Freeze  
U.S.I. Permanent Anti-Freeze

### ETHERS

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Ethyl Ether, Absolute—A.C.S.

### ACETONE—A.C.S.

### ANISOLS

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### ACETIC ESTERS

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### OXALIC ESTERS

Dibutyl Oxalate  
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### PHTHALIC ESTERS

Dibutyl Phthalate  
Diethyl Phthalate  
Diethyl Phthalate

### OTHER ESTERS

Diatol®  
Diethyl Carbonate  
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### RESINS (Synthetic and Natural)

Arochem®—modified types  
Arodure®—urea-formaldehyde resins  
Arofen®—pure phenolics  
Aroflat®—for special flat finishes  
Aroflint®—room temperature curing phenolic  
Aroplaz®—alkyls and allied materials  
Aroplast®—copolymer modified alkyls  
Ester Gums—all types  
Natural Resins—all standard grades

### INSECTICIDE MATERIALS

Allerthrin  
CPR Concentrates: Liquid & Dust  
Piperonyl Butoxide  
Piperonyl Cyclonene  
Pyrenone® Concentrates: Liquid & Dust  
Pyrethrum Products: Liquid & Dust  
Rotenone Products: Liquid & Dust

### INSECTIFUGE MATERIALS

Indalone®  
Triple-Mix Repellents

### INTERMEDIATES

Acetoacetanilide  
Acetoacet-artha-chloroanilide  
Acetoacet-artha-toluidide  
Acetoacet-para-chloroanilide  
Ethyl Acetoacetate  
Ethyl Benzoylacetate  
Ethyl Sodium Oxalacetate  
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Calcium Pantothenate (Feed Grade)  
Choline Chloride  
Curbay B-G® 80  
DL-Methionine (Feed Grade)  
Niacin, U.S.P.  
Riboflavin Concentrates  
Special Liquid Curbay®  
U.S.I. Vitamin B<sub>12</sub> and  
Antibiotic Feed Supplements  
Vocatone® 40

### OTHER PRODUCTS

Acetaldehyde  
Caustic Soda  
Ethylene  
IPC (Isopropyl-N-Phenyl Carbamate)  
CIPC  
Liquid Chlorine  
Metallic Sodium  
Methionine (Pharm.)  
N-Acetyl DL-Methionine  
Nitrocellulose Soins.  
Propionaldehyde  
Propionic Acid  
Sulfuric Acid  
Urethan, U.S.P.  
\*Reg. U.S. Pat. Off.

# U.S.I. INDUSTRIAL CHEMICALS CO.

Division of National Distillers Products Corporation

120 BROADWAY, NEW YORK 5, N. Y.

BRANCHES IN ALL PRINCIPAL CITIES

## NEWSLETTER

Look for news after the first of the year about a new silicone treatment to waterproof leather, applied at the tannery. Evaluation trials are now under way at several commercial tanneries.

•  
Plastic auto bodies—still nowhere near mass production—are nevertheless getting a continually bigger play from car makers. Latest to take a tentative forward step is Packard, which is having four plastic models hand-built by Ionia Manufacturing Co. The first—probably a convertible—will likely be introduced early next month.

Packard now has no large-scale plans for plastics. But if public reaction is favorable, it seems obvious that the company will further explore the economics of going into limited production at a later date.

And Fisher Body (General Motors) has consolidated all its plastics development under one authority at Detroit. Heretofore the work was scattered among various departments and locations.

•  
There's still a trickle of certificates of necessity. The latest list, issued last week:

- Donner-Hanna Coke Corp. (Buffalo), metallurgical coke and chemicals, \$365,000 at 70%.
- American Cyanamid (Willow Island, W. Va.), platinum catalyst for petroleum refining, \$1,265,000 at 65%, \$235,000 at 50%.
- Armour & Co. (Bartow, Fla.), uranium concentrates, \$75,000 at 75%.

•  
Mark down the first loan to a chemical company under the post-RFC lending program of the Small Business Administration. Tri-State Chemical Co. (Henderson, Ky.), a new company planning to make fertilizer, was granted a loan of \$80,000. The money will come from the First National Bank of Henderson, but will be partially guaranteed by SBA.

•  
It was the high-tariff team's turn at bat last week, following the lead of the Manufacturing Chemists' Assn. and the Synthetic Organic Chemical Manufacturers Assn. in presenting their detailed statements to the Randall Commission on Foreign Economic Policy (CW, Dec. 19). Subsequent developments:

- The National Assn. of Glue Manufacturers, reporting that its members are "now being sorely injured" by increasing importations of foreign-made products at low prices, declared that it feels justified "in seeking the degree of protection that will enable it to compete on an equitable basis" with foreign producers. It said that while imports of a certain glue-type gelatin averaged 151,000 lbs./month in 1951, the estimated average for 1953 has been 476,000 lbs./month—an increase of 215% in just two years.

- In testimony before a Senate subcommittee headed by Sen. George Malone (R., Nev.), Tyrone Gillespie, Dow Chemical attorney, advocated study of a scheme to eliminate tariffs on "complementary" goods and to adjust tariffs on competitive products to "equalize wage differentials."

- Protectionists also had their inning in Canada. A new Canadian antidumping law goes into effect this month, intended primarily to protect Canada's textile manufacturers but applying equally to all other industries. Textile makers in Canada had complained for several years that U.S. rivals had been circumventing the former Canadian law by using a few "token sales" in the U.S. to establish a low "domestic price" as a basis for sending end-of-season and end-of-line remnants into Canada at prices below those of Canadian producers.

Convinced that the demand for qualified engineers far exceeds the supply, members of the Engineers' Council for Professional Development this week pondered new ways to entice high school graduates into the fold. Its annual report for 1953 lists these achievements:

- The project to provide counseling for high-school students interested in entering engineering has made progress. A new booklet ("Engineering—A Creative Profession") has been prepared and is ready for distribution. The goal: ultimately to provide counseling in every high school in the U.S. and Canada.

- A training program to aid young engineers—"The First Five Years of Professional Development"—has been started in Cincinnati for some 280 students. The goal for '54: duplicate this program in five similar communities.

- A committee on student development has been formed. Its goal: to fill the gap between the high-school information program and the training classes for young graduates.

While engineers on the lower-than-management level view the program with some skepticism, fearing that more engineers will only tend to depress salary levels, ECPD cites industry pleadings in the help-wanted columns, calls attention to estimated future needs, in urging that its objectives are sound.

There'll be a short wait before it's decided who'll buy the government-owned chlorine-caustic facilities at Muscle Shoals. Bid opening had been scheduled for last week, has been postponed until Feb. 1.


Better government-chemical industry understanding was the successfully attained goal of two Washington meetings last week: one, a luncheon sponsored by the Manufacturing Chemists' Assn. for 242 industry and top-level government men; the second a meeting of the Business & Defense Services Administration's Chemical and Rubber Advisory Committee. Evidence of the latter's usefulness: Dept. of Commerce officials hoped to have another committee meeting in March, but industry members voted to meet again next month.

There was one grim note, though, for the week before Christmas: an industry task force took the wraps off a 60-page summary of what chemical plants could do to maintain production in the eventuality of an atomic attack. CW will report the highlights next week.

"Good will towards men" was more than a pious sentiment this week in Carteret, N. J. Westvaco Chemical Division distributed Christmas turkeys to 400 employees there—including 260 who have been striking for six weeks. (Members of the ICWU-AFL, they're disputing a pension plan.)

... The Editors





*headquarters*  
*for*

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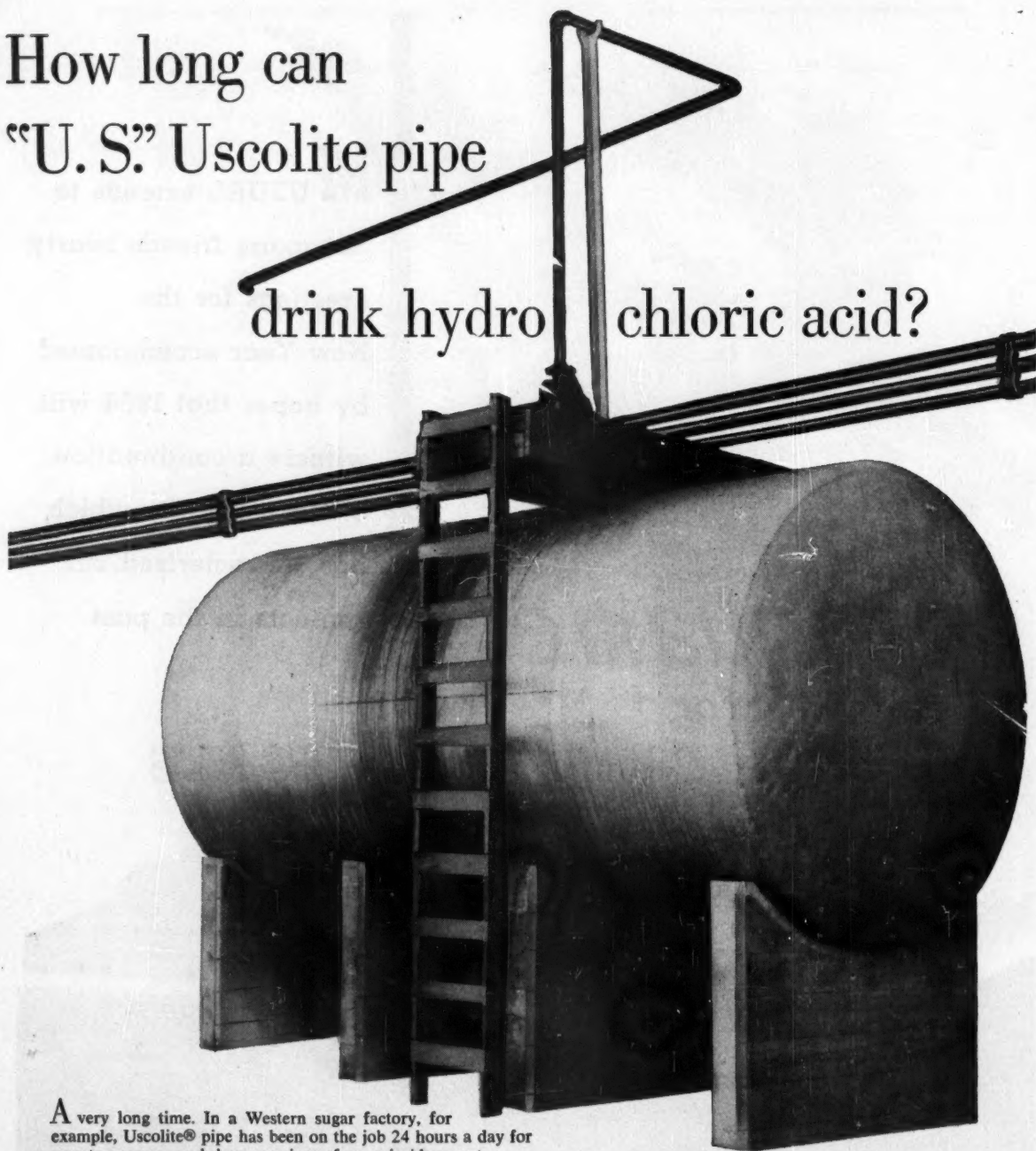
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## BUSINESS &amp; INDUSTRY . . .

## Swords Across the Sea

It's a jarring note for the "peace on earth, good will to men" season, but the fact is that this Christmas week finds industrial groups picking sides for a battle royal on antidumping policy, with the U.S. chemical industry feeling that it's virtually a fight for survival.

For years, American chemical companies have been plugging for tightening of the Antidumping Act of 1921. Now an opposing troop has hoisted its colors. Significantly, a chemical process product is involved. Lawyers for firms that import Swedish rayon staple fiber into the U.S., pausing in their defense against an antidumping action by the Treasury Dept., have gone to the Randall Commission on Foreign Economic Policy and argued that the Antidumping Act should be made even more liberal.

**Some Benefit Seen:** At the moment, the liberalizing faction is on the offensive. Ambassadors from several rayon-exporting countries have dropped in at the U.S. State Dept., expressed their concern about the rayon probe; and State policy is that the U.S. wants more friends and allies—not fewer. The movement also has its supporters in Congress: Rep. Herman Eberharter (D., Pa.), for one.

But there's a chance that Congress may settle on several amendments that would be welcomed by both sides. It happens that importers and domestic producers agree on two points:

- That open hearings be required in all antidumping investigations.
- That the law define more exactly such terms as injury to a U.S. industry and fair value of an imported product.

On other issues, the two groups have sharp differences of opinion. U.S. chemical companies would like antidumping investigations to be made by the Tariff Commission, rather than by the Treasury; and they'd like the special dumping duty imposed whenever foreign merchandise is sold here at less than fair value. Importers think the law should require the investigating agency to consider the over-all national interest.

**Unfairness Charged:** Importers add two more complaints about the 1921 law:

- Across-the-board application of

that law to all imports of a given product punishes many legitimate traders not guilty of dumping.

• Freezing of imports while lengthy antidumping investigations run their course can ruin businesses, destroy the U.S. market for certain imported goods, even if no dumping is found.

In the rayon staple fiber case, imports were frozen last June, and this has hurt U.S. industry also. Sweden, for example, under a special inter-

industry agreement, traditionally uses all the dollars it earns from staple rayon exports to the U.S. for imports of American-made rayon fabrics. This trade has been choked off completely since the June freeze.

Sooner or later Congress may be able to make the 1921 Antidumping Act clearer, more explicit. But it's certain that the American chemical industry—with still vivid memories of such transoceanic trade wars as the one launched by I. G. Farben's 30% price slash on oxalic acid back in the '20s—will fight any move to curb that law's protective features.

## Sedate Zeal in Police Jobs

When the football is snapped to a triple-threat tailback in short punt formation, onlookers wonder: will he run, pass, or kick? There's similar, but longer-drawn-out suspense in some of the big law suits in which the new U.S. Attorney General—New York's Herbert Brownell, Jr.—is carrying out his business-policing mission. There's definitely a new tone in Justice Dept. dealings with industry these days: a more sedate attitude in policy making, a more genteel demeanor in prosecuting. But it would be difficult to back up a charge that the Republican administration has adopted an "anything goes" view. Company lawyers who thought they were in for a four-year vacation from antitrust worries now know that they'll have to be

as watchful as ever—possibly more so.

Examples of the more calm, deliberate approach of the Justice Dept. to its task of enforcing business laws are two major law suits of chemical and pharmaceutical import, pending this month in Federal District Court at Newark, N. J. One is a suit to require a pharmaceutical concern to comply with an agreement made under the Trading With the Enemy Act; the other is the antitrust proceeding against the big three soap and detergent makers and their trade association. Both suits were started a year ago as last-minute acts of the outgoing Democratic regime.

**Up for Decision:** In one action, a decision may be forthcoming almost any day now. That's the disagreement about whether the Schering Corp., Bloomfield, N. J., should grant licenses on certain products and processes patented by Schering before that formerly German-owned company was sold to its present American owners (CW, Dec. 13, '52).

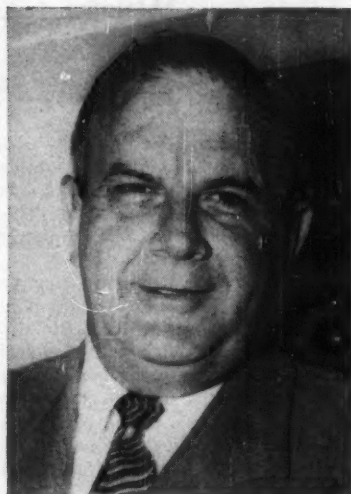
There was no hesitation or soft-pedaling in the government's handling of this suit. Brownell had been in office less than two months when he gave his staff members the green light on this case; he notified the court that "there is a substantial need for continuing and maintaining this action."

The Schering dispute began in July '52 when Hexagon Laboratories, Bronx, N. Y., wrote to the Office of Alien Property (now part of the Justice Dept.) complaining that Schering had refused to issue licenses upon request. OAP asked Schering about this, and Schering replied that "the



JUSTICE DEPT.'S BROWNELL: For company lawyers, no 4-year vacations.





**ANTITRUST DIV.'S BARNES:** On big cases, a slow-but-sure, go-ahead policy.

basic question is whether the corporation is obligated to issue licenses under the provisions of the agreement." Former Atty. Gen. James McGranery then asked the court to enforce the agreement.

**Coercion Charged:** When it became definite that the GOP administration wasn't going to let the matter drop, Schering fired its defense torpedo. The company admitted that its president, Francis Brown, had signed the Jan. '52 agreement, but protested that this was done "under duress and compulsion." Since then, Schering declared, it has found that OAP's order directing Brown to sign the agreement was illegal and in violation of the company's rights. Schering asked the court to dismiss the complaint, nullify the "alleged agreement," and restore to the company all rights and property affected by that document.

The government struck back with arguments to the effect that the attorney general had ample power under existing law to issue that directive. Also, said the government, Schering can't claim "duress and compulsion" because "duress can result only from wrongful demands and not from issuance of a lawful order."

District Judge Richard Hartshorne has promised that the Schering case will have his attention this month if his court calendar permits.

**Tight-Lipped Antitrusters:** In the civil action against Procter & Gamble, Colgate-Palmolive, Lever Bros. and the Assn. of American Soap & Glycerine Producers (CW, Dec. 20, '52), officials of the Antitrust Div., headed by California's Stanley Barnes, are tight-lipped as to their future plans.

So far, the government has held the initiative.

The defendants filed their answers just six weeks after the Republicans took office, and on the very same day the government asked the court to order P&G to let the government attorneys look at about 1,000 pieces of financial and sales records. The request was granted despite P&G's opposition, and later the government gained the right to inspect similar documents from Lever and Colgate.

P&G's fight to withhold its records centered around a contention advanced by company lawyer Kenneth C. Royall—former Secretary of the Army—that the government had violated the company's constitutional rights by having subpoenaed those records during a grand jury investigation, also at Newark, the previous year. The government, Royall asserted, is not permitted to subpoena evidence in a civil suit but had gotten around that hurdle by using the grand jury probe as a means of obtaining data on which to base this civil suit.

**Surplus of Words:** Judge Alfred Modarelli became impatient at the wordiness of the government's counterargument ("When I ask a lawyer, I get a long-winded answer all the time!") but he accepted the government's standpoint.

The grand jury investigation, explained antitrusteer Walker Smith, has to be used in certain instances to determine whether the government should file a civil action or a criminal suit, or drop the case. (Next year, Barnes may ask Congress to amend the law to permit the Antitrust Div. to subpoena company records and officials in civil suits—further evidence that the GOP officeholders don't intend to overlook monopoly and restraint of trade.)

Since then, the only activity in this case has been a stipulation permitting all parties to inspect certain "third party" documents held by the government. Those documents consist of records from 37 companies\* not involved in the suit. What happens next is anybody's guess.

Events in other antitrust proceedings—such as the sudden filing of charges against lead pigment makers (CW, Oct. '31) and the shift from criminal to civil action against the big oil companies—make it appear that Brownell is not lacking in Sherman Act zeal, but that he's putting primary emphasis on correcting alleged abuses, rather than on inflicting punishment.

\* Including Du Pont, General Dyestuff Corp., Rohm & Haas, Sharples Chemicals.



**TOYS APLENTY:** Atlas Girls' Club . . .

## Keeping Xmas

Like a fond but semiself-conscious parent, chemical companies this year are watching with pride the demonstrable Christmas spirit of their employees. Corporate contributions are generous, generally unsolicited, but the trend's heavily in favor of letting employees "do it their own way." In the end, say company officials, more people benefit; everyone feels he's made a personal contribution in the true spirit of the holiday season. Mode of expression varies, of course, as widely as does taste in Christmas cards. Selected at random from company reports of Christmas activities in CW's nationwide survey last week:

- Many carefully planned children's parties. Some (such as the one arranged for Du Pont cellophane employees' children in Old Hickory, Tenn.) are strictly company affairs. Others (such as the Pfizer company party in Brooklyn) are held for underprivileged children—invited by employees themselves or through local charity organizations. Games, gifts, and the traditional Santa Claus are the order of the day.



... takes part in "Toys for Tots" campaign.

## Their Own Way

• Musical programs are popular in all sectors of the country. In Midland, Mich., Dow Chemical's girl's chorus, male chorus and symphony orchestra pooled talents this year, presented Handel's "Messiah." In Bound Brook, Cyanamid's Calco carol singers are presenting a program to be taped, rebroadcast over local radio stations. At Sterlington, La., Commercial Solvents is sponsoring a section of the local television station's Christmas broadcast, considers it a Merry Christmas gesture to all its neighbors in the community.

• Monsanto's Queeny Plant in St. Louis calls on the city police this year for an assist in spreading cheer. Lists are drawn up (with police aid) of the needy in the neighborhood; food, and gifts are distributed in the name of company employees.

• Humble Oil and Refining lays claim for the fifth straight year to having the biggest Christmas decoration in Texas. Its Baytown plant is draped with lights (see cut).

• In the Wilmington, Del., area, Atlas Powder employees are partici-

pating in a national campaign to "Keep Christ in Christmas." The group, as one part of its drive, has built a life-size manger scene, is receiving an ever-rising flood of appreciation for its work.

• Texas City employees of Carbide and Carbon Chemicals this year are remembering their former colleagues now in military service with a novel (and sure to please) Christmas surprise. The idea: to send to each serviceman recent pictures of his family and sweetheart back home. The job of printing, mounting in folders, and mailing was handled by employees themselves.

• At Port Sulphur, Freeport Sulphur decorates several trees on the townsite, encourages community cooperation in spreading goodwill by offering prizes for decorations in the area.

Elsewhere, the picture's similar, with variations. Management today concedes that the less it attempts to channel its employee's expressions of Christmas spirit, the greater that expression turns out to be. There's indication, too, that the trend today is to spread community giving out over a twelve-month period, rather than to concentrate it in the few weeks preceding Christmas. Says one company president: "For years we had a policy of donating specified amounts at Christmas to charitable organizations in the area. But it got to be too impersonal. Last year, for the first time, we decided to cut it out... The result is amazing us all. This Christmas, everybody has pitched into the act; now somehow we know the true spirit of giving."



LIGHTS GALORE: Humble Oil... all decked out like a Christmas tree.

## EXPANSION . . . .

**Sulfuric Acid:** Davison Chemical Co. will start sulfuric acid production at its \$12-million triple-superphosphate plant at Bartow, Fla., early next month. Rated capacity: 550 tons of 100% acid daily. Initially, the entire output of the acid unit will be used to produce triple-superphosphate (at a 200,000-ton yearly clip), but company officials hope there may be a surplus of acid for sale soon.

**Sulfuric Acid:** Thurston Chemical Co., a division of W. R. Grace & Co., will build a contact sulfuric acid plant as an addition to its Joplin Mo., facilities. Cost of the expansion: well over \$1 million. It's planned to use output to manufacture ammonium sulfate, phosphoric acid, superphosphates, and triple-superphosphates at the Joplin plant site. Company officials say that a sulfate of ammonia plant, a triple-superphosphate unit, and a phosphoric acid plant have just been completed and are now in operation.

**Propane, Butane:** Gulf Refining Co. will build a \$10-million cycling and gasoline plant for the Krotz Springs Field, St. Landry Parish, La. The proposed plant (listed as the largest and most modern of its kind in Louisiana) received the go-ahead when State Conservation Commissioner John B. Hussey formally o.k'd building plans last week; construction's due to start by Jan. 1.

Production of liquid petroleum by-products will include 11 million bbls. of propane, 10 million bbls. of butane, 6.5 million bbls. of condensate yearly. Best guess: operation should start by next July 1.

## COMPANIES . . . .

**Bids for construction** of a \$4-million wallboard plant at Seattle, Wash., will be opened on Dec. 29 by Kaiser Engineers on behalf of Kaiser Gypsum Co.

**A stockholder battle** over the future of Forest City Industries, Inc., Cleveland, seem sure to break soon with the release of a letter by eight directors of the company in answer to a stockholder demand that the company be dissolved, that assets be distributed to stockholders.

Actual request for liquidation was tendered by a Cleveland investment firm (Wm. J. Mericka & Co., Inc.), owner of about 35,000 shares (approximately 15%) of the common stock outstanding. Argument is that



the "economic reason for the company's existence is gone; we do not wish to stand by and have a cash investment turned into assets of unknown quality."

Forest City has been quietly disposing of its various drug operations since 1949; the only remaining drug operation is Badger Wholesale Drug Co., Milwaukee. Ask disgruntled stockholders: "Where will profits come from . . . to offset expenses and overhead . . . if there's only one operating unit left?"

United Dye & Chemical Corp. has gained control of Camden Forge Co. through acquisition of 65,000 shares of common stock. United Dye officials say they'll offer to buy the remainder of Camden Forge's shares of common outstanding at \$17.50/share—if available.

Late company incorporations include:

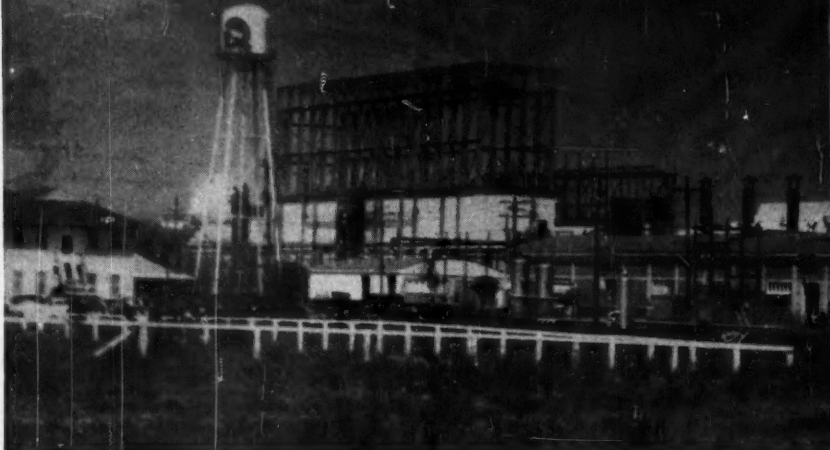
- McArthur-Nunan Chemical Co., in Dover, Del., with a listed capital of \$100,000.
- McArthur Chemical Co., in Dover, with listed capital of \$100,000.
- Chemical Weed Control, Inc., in Dover, with capital of 2,500 shares of stock, no par value.

National Gypsum Co. has made an arrangement with Dominion Asbestos Mines, Ltd., Canada, which gives the Buffalo company a 90-day option to acquire the asbestos mining concern. National company executives say if the option is exercised, the U.S. company "will end up putting \$5 million into mining asbestos in Quebec."

Final arrangements are awaiting approval of Dominion Asbestos stockholders. Meanwhile, says Chairman Melvin H. Baker, of National Gypsum, "we'll advance \$300,000 to National Gypsum immediately to keep it out of receivership." In return, National will get a lien on the Canadian company's plant and property.

In preparation for the expected availability of natural gas in Washington within the next three years, five Washington State Gas companies will be merged into the Cascade Natural Gas Corp., Seattle. Concerned in the deal: Bellingham Gas, Bremerton Gas, Wenatchee Gas, Northwest Cities Gas, and Consolidated Gas.

Principal stockholder of Cascade today is Pacific Petroleum, Ltd.—directly associated with West Coast Transmission Co.—one of the two big companies known to be seeking exclusive rights to provide the Pacific Northwest with natural gas.



EL DORADO PLANT: Produces nitrogen at an annual rate of 160,000 tons . . .

## Neither Fish Nor Fowl

Like chance acquaintances that develop into long and enduring friendships, Lion Oil's introduction to the chemical industry (inspired by the U.S. government) has blossomed into a healthy alliance. By this week company officials estimate that within another 12 months, Lion's total investments will be split evenly between chemicals and refining; sales of chemicals will account for more than 40% of total company business. Further, if present intentions are fruitful, it won't be long before chemicals become the major production partner—relegating oil refining to the position of favored, but slightly outpaced stablemate.

Incorporated as Lion Oil Refining

Co. in Delaware Oct. 27, 1923, to acquire all the stock of Lion Oil & Refining Co., the company has materially added to its refining capacity in the past 30 years—now nets 21,850 bbls./day of crude oil. Entry into the station marketing phase of refining was initiated—nursed into a 100 million gal./year gasoline operation.

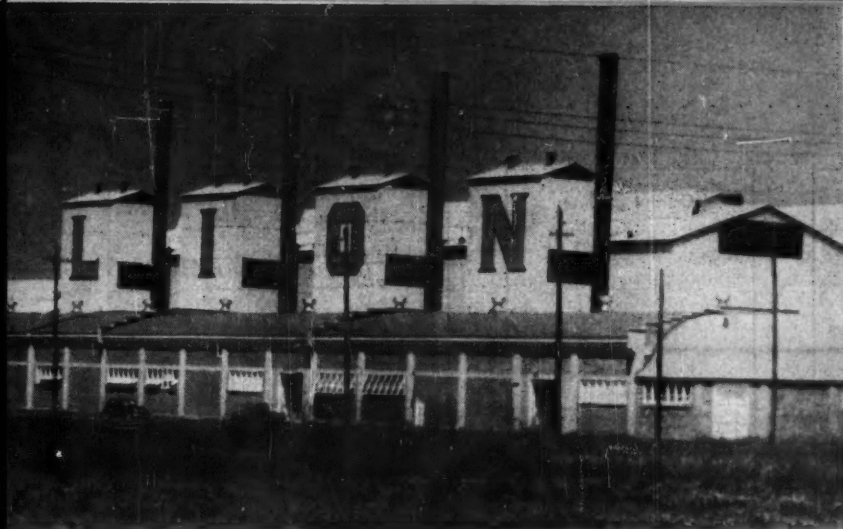
But the real shot in the arm for Lion came on May 13, 1943 when it decided to undertake management of the Ozark Ordnance Works (turning out anhydrous ammonia), five miles north of El Dorado. Interest in chemicals, once fostered, grew steadily. By 1946, Lion leased the plant it had been persuaded to run, immedi-



ELWOOD PAYNE

CHAIRMAN BARTON: "Anhydrous ammonia will be base of our chemical operations."





... ammonia at 570 tons/day; nitric and sulfuric acid as intermediates.

ately started to market ammonium nitrate fertilizers. An immediate hitch developed however: Lion discovered the final step in the process—graining—had to be done in a plant at Minden, La.—operated under contract by the government. Company officials again took stock of the situation—concluded that one foot in was not enough, plunged into construction of a prilling unit (first of its kind in the U.S.) at El Dorado. By the summer of 1947 the gamble paid off; integration of prilling with production of ammonia and nitric acid placed Lion at the fore of fertilizer producers in the Southwest.

**Gathering Speed:** As might be expected, commercial chemical operation, once started, was a spur to further expansion ideas:

- Since the new unit had its own ammonium nitrate neutralizing unit, Col. T. H. Barton, president (now chairman of the board), decided by July, '47 to use idle equipment to branch out into production of nitrogen solutions. Simultaneously, a new nitric acid plant (to supply necessary requirements) was proposed.
- Late in the same year, a research division was set up near El Dorado "to broaden company progress."
- On March 2, 1948, Lion bought its government-leased ammonia plant for \$10.5 million "to permit greater flexibility... to make the plant more readily available for expansion."
- Three Cajor moves came in 1949: some \$3.5 million was allocated to increase ammonia capacity from 440 to 570 tons/day; a contact sulfuric

acid plant, costing \$1.125 million was built; ammonium sulfate facilities (at \$750,000) were set up to turn out 380 tons of sulfate per day. Almost lost in the shuffle: a \$800,000 bid to raise output of ammonium nitrate to 400 tons/day.

**Time Out:** Until 1952, Lion quietly absorbed its sallies into the chemical business; not until early 1952 did Pres. T. M. Martin reveal the next step in Lion's plans. This time it would be a \$31-million fertilizer setup at Luling, La., on the Mississippi River, a few miles above New Orleans. Purpose: to supply a different area from that now serviced by El Dorado, ease Lion into Eastern markets in a field it had come to know well. Considerable acreage, says Col. Barton, has been acquired at Luling, insuring the possibility of future expansion.

But fertilizer production alone apparently isn't causing the spark in the Colonel's eye. There's talk of making many products from ammonia... getting into package chemicals before too long. Promises the affable board chairman: "We feel as though we have just started in the chemical business; possibilities are enormous."

Other lines are currently out, too. By this week, Lion was producing 24 different rust preventives (largely for the government), is getting into the moisture-vapor proof barrier business, is producing herbicides (for the cotton growers, railroads).

Chemical sales this year are up again. Over the first 11 months of 1953, the total was almost \$21.7 million as compared with \$20.7 million a year ago. That's particularly heartening, say company officials, when you stop to consider the effect of the recent fertilizer sales drought.

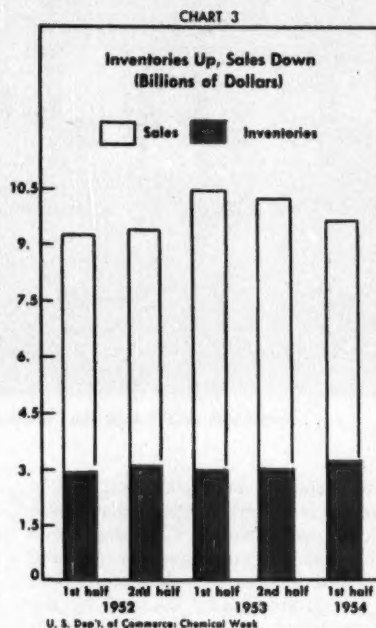
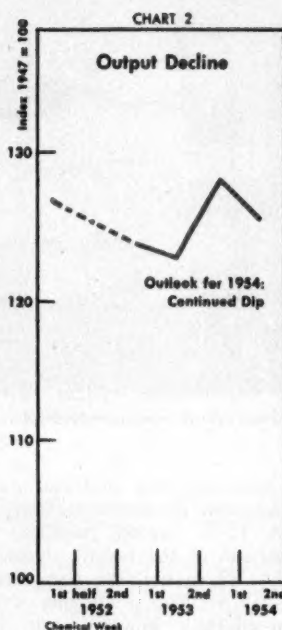
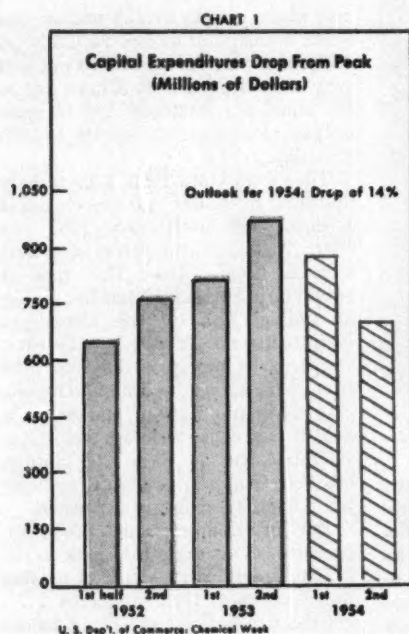
As for next year: the picture's appealing. The Luling plant (to be known as the Barton plant) should come onstream in the second quarter, will increase Lion's nitrogen-producing capacity by 56% (90,000 tons/year). Under normal operating conditions, it's planned to turn out 300 tons of ammonia daily, convert 250 tons of it to pelleted ammonium nitrate, and offer the rest for direct sale. Nitric acid required in the process, will be manufactured in a unit capable of producing 430 tons daily.

What will come next is a moot question. That it will be in the line of further diversification into fertilizers is a good bet. But it won't surprise close observers of Lion's recent history, if the company takes a new tack entirely. Almost any phase of petrochemical production would be a natural.



PRESIDENT MARTIN: Promises Luling plant will be rolling by mid-'54.

ELWOOD PAYNE



CHARTS 1-6 BY DOUGLAS GREENWALD—McGraw-Hill DEPT. OF ECONOMICS

## Sweet Music, but at a Slower Tempo

Christmas bells may ring out several times again before the chemical industry has cause to celebrate in 1953 style. This year's record sales and output are likely to slip somewhat in 1954, though on the whole the outlook's mighty bright. Best qualified to know: chemical manufacturers themselves, who by this week pledge their faith in the future with expansion plans totaling over \$1.5 billion. Stacked on top of a \$9-billion post-World War II outlay for increased capacity, modernization and replacement costs, it's a pretty fair indication that chemical executives regard the current boom as basically healthy—that overcapacity, where it exists, will soon be absorbed by the demands of an expanding peacetime civilian economy.

Total output of all industries, McGraw-Hill surveys show, will probably continue to slide off through the first half of '54. By midyear, industrial production may be 10% below the peak reached in the summer of '53, barring a prolonged strike or a national catastrophe. You can look for some resurgence midway in the year, a leveling-off at a lower-than-now plateau.

The chemical industry, however, will do much better than industry in general. Best bet today is that chemical output on the average will slip only 3-5% below its recent peak.

Basic reason for the decline right now is the slowdown in demand from consumer industries. As a result, inventories have piled up, have reached an all-time dollar-volume high.

"But that's to be expected," industry spokesmen agree. Overcapacity, says one, rather than coming as a surprise, "was a well-considered risk in an emergency that required the chemical industry to step up production in some lines beyond expected civilian needs." The fact that output's running ahead of consumption, avers another, is simply evidence that businessmen were justified in asking for accelerated tax write-offs on facilities built "ahead of schedule" for war purposes.

"True," offers a third, "we have received a jolt of artificial stimulation in the chemical industry over the past several years—but the bulk of our progress has been a sound upgrading of the American standard of living." Requirements for chemicals today are lagging somewhat behind production capacities . . . but the gap's not great. The outlook for the next six months would naturally suggest some downward adjustment in inventories, but not in the magnitude of a true recession.

**Chain Reaction:** Regardless of present indications, declining output and increasing inventories are apt to affect prices in '54. Though prices are now higher on the average than at

any time in recent years, the trend's not expected to continue many more months. There'll be exceptions—prices on some chemicals may hold firm into 1955—but look for some price easing soon. High capital investments and labor rates will brake any sudden drop, but the combined pressure of increased capacity and widened competition can't be withstood indefinitely.

Old-line industrial chemicals and drug intermediates may well fall behind first—the latter are already readjusting to the impact of foreign imports and the development of new products. Ethylene glycol producers say inventory conditions even now "are in an unfavorable position"; rubber manufacturers look for a decrease in synthetic rubber production because of recent natural-rubber price cuts.

More optimistic are the petrochemical producers, who see the promise next year of even greater strides in the detergent, plastics, resin fields. Ethylene, benzene should hold fairly steady; ammonia is still in heavy demand, both as a fertilizer and for synthesis purposes.

As for industrial chemicals, there's no telling who'll tumble out of the price line first. But obviously the overall pattern is destined to parallel manufacturing activity in general—so the fall won't be drastic.

**Nub of the Matter:** Sales of chemicals, predict McGraw-Hill economists, should hold up exceedingly well in 1954. Credit goes in part to foresighted executives who have stepped up sales forces, put the spotlight on selling. Too, a pickup in demand is expected in the first half of the new year from consumer industries that have been sitting on the fence waiting to see which way the tide will turn.

"Many of our best customers," avows one Midwest producer of intermediates, "have deliberately let their supplies dwindle down to virtually nothing. They were quite openly waiting to see which way to go. As a result, our sales suffered. But with the business outlook so good now . . . orders for January delivery are coming in again. It's no soft touch; there's plenty of competition . . . but from the way things look now, we're in for a good first quarter next year."

West Coast chemical executives echo his words: "Everybody out here has struggled with the same problem in recent months. Customers have been hedging . . . waiting to see what Washington will do . . . what the

business outlook will be . . . how much corporate taxes will be lightened."

Elimination of excess profits taxes, too, is bound to be felt in certain sectors of the chemical industry, promises to furnish a reserve of earnings to companies in high tax brackets.

**No Help Here:** Any sales lift, resulting from exports of chemicals in '54 (contrary to performance this year, when dollar volume of chemicals exported exceeded the most enthusiastic predictions) can't be expected, though, owing to a growing shortage of dollars abroad in most markets.

The U. S.—regardless of the dip—will still hold its ground in international chemical trade. Recent export figures show the slackening is worldwide. Even in Germany (where chemical exports have leapfrogged) manufacturers report they're resigned "to early 1954 softening of markets."

And right in sequence, U. S. chemical imports next year should decline to some extent. Tariff controversy to the contrary, a large measure of the '53 demand for imports was powered by the peak industrial activity in this country itself. Any reduction in

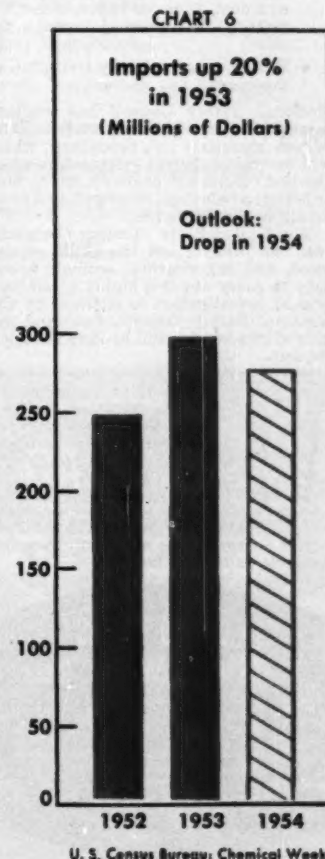
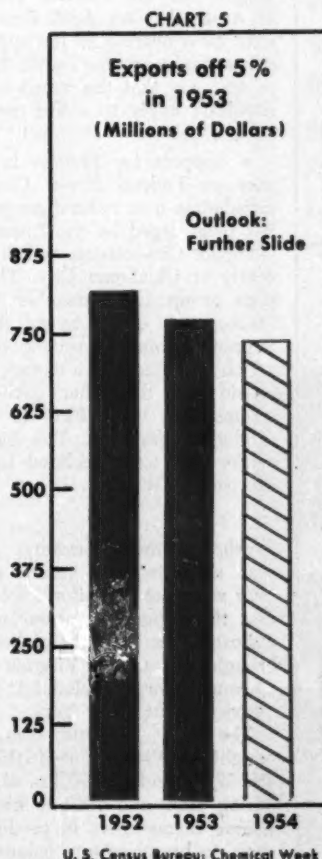
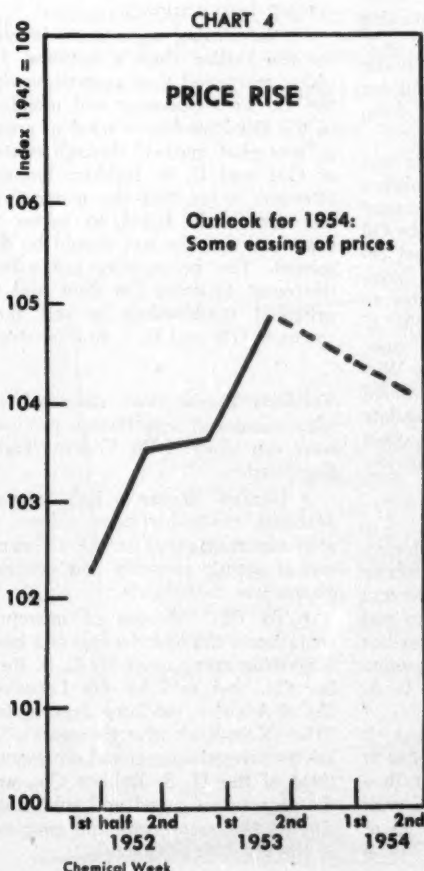
industrial output next year (the Federal Reserve Index hit a 1953 average of 134\*) will therefore trigger a drop-off in demand for foreign-bred chemicals; there'll be less dollar advantage to be gained, less incentive to foreign producers to break into a "gravy market."

**Cheerful Package:** It all adds up to a mighty cheerful Christmas package for the chemical industry: consumer demand should be high; sales should hold firm; inventories should simply taper off; expenditures should slip only slightly below 1953 records.

Prices seem sure to drop only slightly; output will come close to equaling 1952 standards.

"You can't properly call it a recession," one observer notes, "when all we're doing is going forward at a somewhat reduced pace." Neither the curve of our national economy nor of the chemical industry, in particular, has ever followed a straight and unwavering line: we're always either in a period of excess demand, of expansion, of assimilation, or of surplus. "That's the path of progress . . . and we have some catching up to do."

\* New base: 1947-49=100.





## TOXICITY EVALUATION of New CHEMICAL PRODUCTS

as Specified by  
NATIONAL SAFETY COUNCIL

Physical, chemical and engineering information is important to the presentation of every new chemical product. But equally important is another kind of precise information . . . *toxicological properties*.

According to the *National Safety Council*, manufacturers and users will probably require the answers to these important questions:

- What effect will the new chemical have upon workers coming into contact with it either accidentally or during processing?
- How does the new chemical compare with older, well-known industrial chemicals with regard to toxicity?
- What is the information on the general order of toxicity: low, intermediate, or high?
- Are the hazards those of inhalation as a dust, fume, or vapor, or can the material be absorbed through the skin?
- Will it cause primary irritation of the eyes?

National Safety Council has outlined procedures for evaluating acute toxicity of new chemicals . . . procedures which will furnish sufficient information when the test results are properly interpreted to permit production, shipment, and processing in a safe manner.

The United States Testing Company, Inc., we believe, has the skills, equipment, and experimental animals necessary to carry out this highly specialized type of investigation as outlined by the National Safety Council. Cost and details of this service will be supplied upon request.



Write to us for free copy of the *National Safety Council's Proposed Procedures for Evaluating the Acute Toxicity of New Chemicals*.

Note: The National Safety Council Procedure is applicable to known chemical products as well as the new.

## UNITED STATES TESTING COMPANY, Inc.

ESTABLISHED 1880

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## BUSINESS & INDUSTRY

### LEGAL . . . . .

**Battle-Scarred Phillips:** Now involved in three separate court battles relating to chemicals and petrochemicals is Phillips Petroleum Co., which last week found itself facing one industrial and a flock of governmental adversaries:

- **Industrial Solvents Corp.,** Scarsdale, N.Y., is suing Phillips for \$1.2 million, alleging that Phillips refused to carry out its end of a 1952 contract whereby Phillips would provide 200,000 short tons of solidified aromatic petroleum pitch for ISC to resell to manufacturers who previously had been using coal-tar pitch. ISC asserts that Phillips, using technical and commercial information received from ISC, has begun selling the petroleum pitch directly to manufacturers whose interest in the product had been aroused by ISC.

- **The State of Texas,** which has been collecting about \$140,000/year in taxes on sulfur extracted from "sour" natural gas by Phillips and six other producing companies, has appealed a test case won by Phillips (*CW Newsletter*, Oct. 31) in which the trial judge found that the tax was illegal. An intermediate state court at Austin has set April 7 as starting date for a hearing on the appeal. The seven producers, paying the tax under protest, say that the state's sulfur tax shouldn't apply to sulfur made from natural gas.

- **Support for Phillips** in its test case on Federal Power Commission jurisdiction over natural gas producers has been urged by the Interstate Oil Compact Commission, which met recently at Oklahoma City. The Interstate group asked member states to "make every effort" to get the U. S. Supreme Court to review the case, which now stands as a victory for Wisconsin and the other governmental groups that want FPC to regulate producers' gas rates. The high court earlier this term declined to review the case (*CW*, Dec. 19).

**Synthetic Fiber Warranty:** Alleging that shipments of Vicara synthetic fiber were not of uniform weight and that the weight variations were not indicated, Pacific Mills of Boston has brought suit against Virginia-Carolina Chemical Corp., Richmond, in U. S. District Court, New York.

The New England firm says it bought the Vicara tow—43,000 lbs. at \$0.832/lb. and 55,000 lbs. at \$1/lb.—during 1950 and 1951 to blend with viscose rayon fibers in production of yarns to be made into colored textile

fabrics for clothing, and that it relied on V-C's warranty. But, the complaint continues, because of the weight variations, the yarn wasn't a 50-50 blend; the fabrics didn't uniformly absorb the dyes, and the dyed fabrics exhibited filling bands that rendered the fabrics unsalable as first-quality goods. Pacific Mills is asking \$89,741 as production value lost (resulting fabric worth only 73¢/yd. instead of \$1.55) and \$20,106.24 refund on unused Vicara, plus interest and costs.

Virginia-Carolina has entered a general denial, and in particular, it denies that its Vicara tow was defective or that any weight variations were undisclosed. Further, V-C adds, the suit should be thrown out because Pacific Mills didn't make any claim within 30 days after the Vicara was delivered.

**Trial Arguments End:** Last week marked the end of the closing arguments in the Du Pont-General Motors-U. S. Rubber antitrust trial, which began in Chicago 13 months ago; and Federal Judge Walter La Buy can now begin to work out his findings of fact and conclusions of law. Final judgment probably won't be forthcoming before spring.

In the closing arguments, lawyers for the Justice Dept.'s Antitrust Division reasserted their contention that the Du Pont company and members of the Du Pont family tried to create a "protected market" through control of GM and U. S. Rubber. Defense attorneys argue that the government has completely failed to prove its case, and that the suit should be dismissed. The prosecutors are asking the court to order Du Pont and its principal stockholders to sell their shares of GM and U. S. Rubber stock.

**Fertilizer Fracas:** Two chemical fertilizer and soil conditioner products have run afoul of the Federal Trade Commission:

- **Garden Research Laboratories,** Madison, N. J., has been ordered to stop advertising that its "RX-15" came out of atomic research and contains radioactive ingredients.

- To FTC charges of misrepresentation of the effectiveness of a lawn improving agent made by U. S. Rubber Co. and sold by the Loamium Co. of America, the latter firm replies: "The (Kem-Kut) advertisements . . . are the advertisements and representations of the U. S. Rubber Co., and the respondent acted and sold Kem-Kut on the assurances and promises of the U. S. Rubber Co."

# TRIETHANOLAMINE

from Carbide and Carbon

25...for more than  
25 a quarter of  
25 a century

That's how long CARBIDE has been producing and supplying triethanolamine. Of all the amines produced, this viscous, hygroscopic liquid offers one of the widest ranges of uses for emulsions and other chemical processing fields. So, before you decide on any amine, consider CARBIDE's triethanolamine—available in two grades, "regular" and "98 per cent."

A 44-page booklet "Aliphatic Nitrogen Compounds" gives the latest information on physical properties, specifications, and shipping data for triethanolamine and the other amines available from CARBIDE. For your copy, write to the nearest CARBIDE office. Offices located in 21 principal cities. In Canada: Carbide and Carbon Chemicals, Limited, Toronto.

## SOME OF THE TYPICAL USES OF TRIETHANOLAMINE:

### Industrial Oil Emulsions

- increasing solubility of sulfonated oils
- wool lubrication
- leather fat-liquoring
- other oil emulsions

### Soluble Oils

- soluble mineral oils
- cutting oils
- textile machinery lubricants
- rayon oils
- orchard sprays

### Solvent Emulsions

- hydrocarbon solvent emulsions
- chlorinated solvent emulsions

### Industrial Wax Emulsions

- dispersion of casein, shellac, dyes, and rubber latex
- shoe polishes and leather dressings
- sizing and water-proof coatings

### Oil and Wax Polishes

### Rubless Floor Polishes

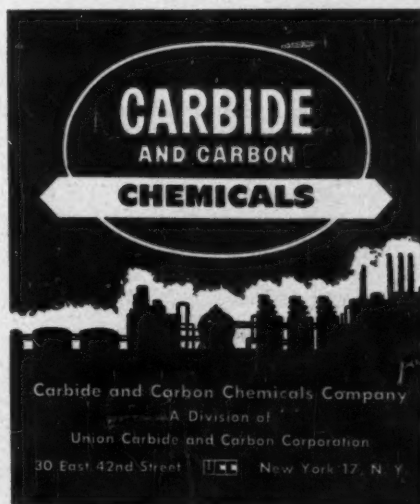
### Cosmetic Preparations and Detergents

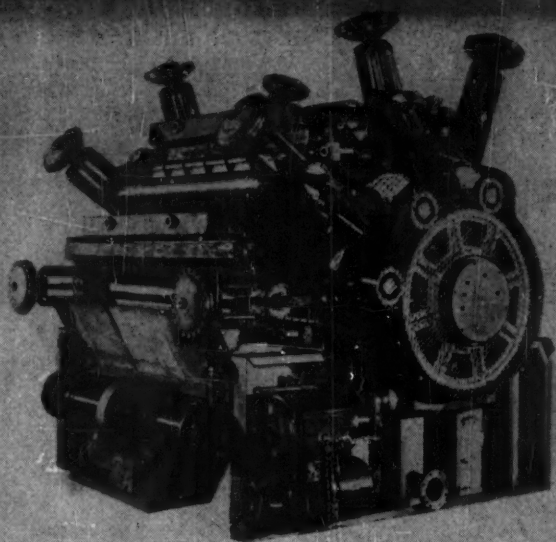
### Neutralize Natural Oils, Clays and Pigments

### Photographic Film Developing Baths

### Removal of Carbon and Gum Deposits

### Corrosion Inhibitor





## *Yes! This is a Continuous Vacuum Filter*

**PROBLEM:** To dewater a chemical solution precipitating a calcium-bicarbonate crystal — maintaining purity of product — keep moisture content down and speed up production.

**ANSWER:** The machine pictured above is the answer to this problem. Eimco's more than half a century of experience in solving processing problems, and the customers top practical and technical men, combined resources to solve this most difficult filtration problem.

This is typical of the specialized nature of the Chemical Processing Industry today. The specialized attention given this job by Eimco engineers is also typical of the individual attention given all Eimco built equipment.

Many jobs require attention that Eimco alone can give them. For instance, when a job requires special cast grids, Eimco's own steel foundry will pour the heat of just the desired alloy steel to meet the customer's specifications.

Eimco specializes in filtration equipment. Write for information on specialized filtration equipment in your industry.



**THE EIMCO CORPORATION**  
Salt Lake City, Utah, U.S.A.  
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B & I . . . . .

## LABOR

**De-pinking the Plants:** Chemical companies—particularly the present or potential contractors on national defense projects—are thinking about two recent developments related to the problem of keeping industrial plants free from Communist spies and saboteurs:

- General Electric's announcement that it will discharge any employee who admits anti-U. S. activities, and that it will suspend for 90 days—pending governmental clearance—any employee who (1) is identified publicly and under oath before a governmental unit as a Red agent, or (2) refuses to testify about such activities on the ground that his testimony might tend to incriminate him.

- Indications that there'll be a move in Congress next month to enact S.B. 1606, introduced by Sen. John Butler (R., Md.), which provides that a union accused of being Communist-dominated shall lose its bargaining rights until the union is cleared by a "subversive activities control board" to be set up for that purpose. (Labor unions are bitterly opposed to this bill; they say that no union's certification means anything as long as anyone can upset it simply by making an accusation.)

While chemical companies may find it necessary to adopt a firm policy on dealing with "security risks" already on the payroll, most industrial relations managers will string along with the "ounce of prevention" axiom, plan to step up their departments' diligence in:

- Careful screening of new employees, including checkups with persons listed as references.

- Two-way communications with employees, including closer personal relationships between supervisors and rank-and-file workers.

- Attention to situations that—in employees' eyes—seem to involve justice and fair play in company dealings with employees.

**Oil Workers Win:** Employees in the new polyethylene plant of Canadian Industries, Ltd., Edmonton, Alberta, have voted to be represented by the Oil Workers International Union (CIO) rather than by District 50, United Mine Workers. Vote was 119 to 21. OWIU is seeking bargaining power in petrochemical processing on both sides of the border.

**Wage Trends Vary:** The general direction is up, but wages in various branches of the chemical processing





## Sodium Fluoride

97% (Dense Powder or Granular)

## Sodium Fluosilicate

98% (Dense Powder)



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fluoridated drinking water. Widely used for Public Water Fluoridation, AA QUALITY Sodium Fluoride and Sodium Fluosilicate combine *uniformity with quality*—the result of exacting chemical control and over 85 years' manufacturing experience. Available in bags or drums, each product supplies the fluorine recommended for sound teeth. Service you can depend on, because of large-scale production. Assured quality, security of supply, prompt service—good reasons for using AA QUALITY Chemicals. Mail coupon for full information.

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#### GELATIN

KEYSTONE® Gelatin: Edible, Photographic  
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Disodium Phosphate • Trisodium Phosphate  
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85% N. F. Grade • 75% Pure Food Grade  
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#### PHOSPHATE ROCK AND FERTILIZERS

All grades Florida Pebble Phosphate Rock  
Superphosphate • Complete Fertilizers

Florida pebble phosphate rock as it comes from our mines—source of Elemental Phosphorus and other AA QUALITY products.



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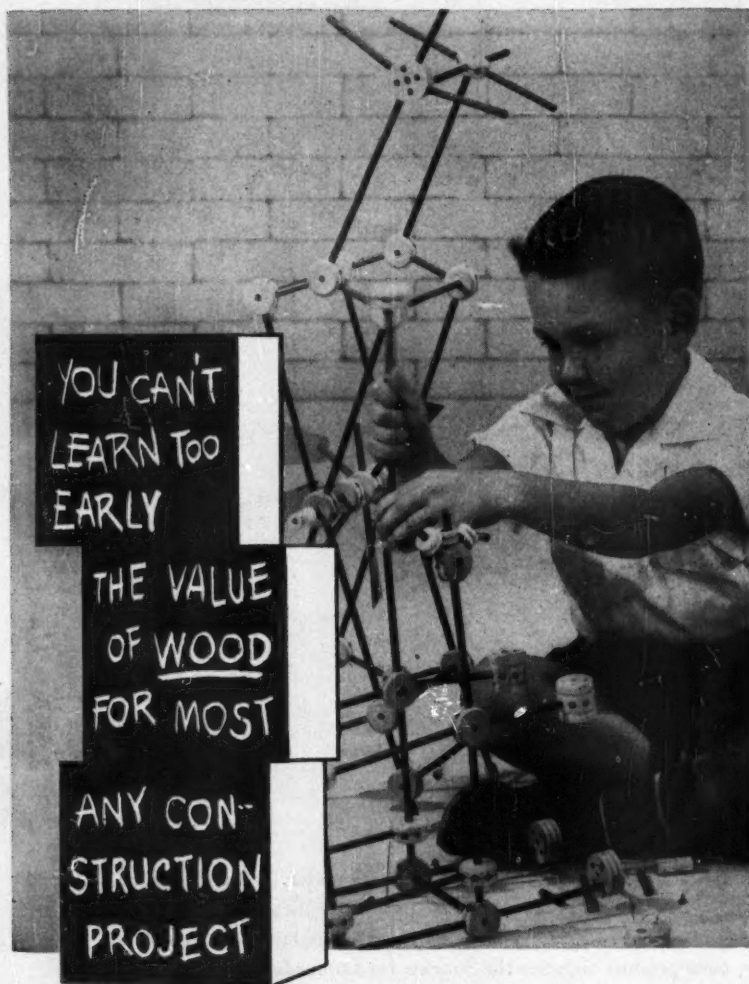
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## **B & I . . . . .**

industry are rising at different rates.

- Biggest centwise boost of the week was 8¢/hour granted by Colgate-Palmolive to employees at its Clarksville, Ind., plant, represented by International Chemical Workers Union (AFL).

- At Rochester, N. Y., Eastman Kodak announced that nearly all of its approximately 50,000 employees will receive a 5% general pay increase starting Jan. 1. It will cost the company more than \$10 million/year.

- Employees of three large Consolidated Paper Corp. mills in Quebec have accepted a 3% pay rise, bringing their basic wage rate up to \$1.46/hour for a 40-hour workweek.

- Taking into consideration present conditions in the textile industry, members of the Textile Workers Union (CIO) at three American Viscose plants in Pennsylvania have voted to withdraw their original demands for higher wages. Union officials said the decision carried "by a very slim margin."

**Union Rifts:** Labor union cleavages in the vicinity of Paducah, Ky., that have retarded the country's atomic energy program seem to have been narrowed down in number and in scope this Christmas week:

- The operating engineers at the Paducah atomic energy project, to be operated by Carbide and Carbon Chemicals, have patched up their feud with their AFL parent union. In return for getting "home control" of their Local 181, they are dropping their \$2.5-million damage suit against the union.

- Construction has resumed on the electric plant that will supply power for the Paducah project, but members of Local 595, Iron Workers (AFL), may hit the warpath again because of the parent union's action last week in expelling the local's popular business agent, William Sanders, for insubordination. Sanders has obtained an injunction against the ouster.

## **FOREIGN . . . . .**

**Fertilizer/New Zealand:** Chemical engineers of the Dominion Laboratories in New Zealand (part of the Dept. of Scientific and Industrial Research) are investigating processes for producing phosphate fertilizers independent of sulfur. At least one process, it's reported, has reached the stage where several tons have been produced for field trials on plants.

New Zealand now uses imported sulfur in about 80% of its production of home phosphate fertilizer require-

# Can AMMONIUM THIOCYANATE

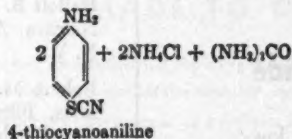
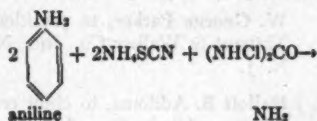
## be used in your process?

available in crystalline form or 50-60% solution

1. The Thiocyanate group can be introduced into many organic compounds by reaction of ammonium thiocyanate with the corresponding halide.

2. Thiocyanogen can be generated by the electrolysis of an aqueous solution of ammonium thiocyanate.

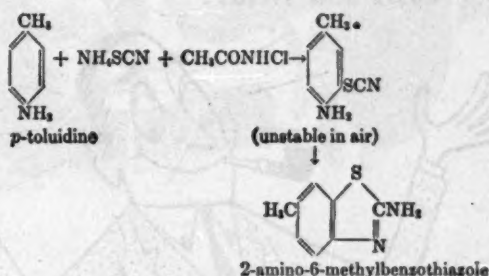
3. Aromatic thiocyanates can be prepared with ammonium thiocyanate with the aid of chloramides. The thiocyno group easily takes up the position para to the amine group, especially when one or both meta positions are vacant. If the position para to the amine group is occupied, the thiocyno group



enters one of the ortho positions, but only with difficulty, with excessive heat liberation, and with the formation of a thiazole.

4. Some amine salts react with ammonium thiocyanate to give the corresponding amine thiocyanates.

5. Some amine salts yield the corresponding thioureas.



6. Guanidine thiocyanate may also be prepared in 90% yield by heating dicyandiamide with ammonium thiocyanate.

7. Amidines can be prepared by heating nitriles with ammonium thiocyanate at approximately 180°C.

8. 2-Thiohydantoins can be synthesized from acyl derivatives of α-amino acids with ammonium thiocyanate in acetic anhydride solution.

Baker Ammonium Thiocyanate is a product of synthesis stable at ordinary temperatures.\* The crystalline material is soluble, clear, colorless, odorless. These advantages all contribute to economical, more trouble-free manufacturing.

Because Baker controls all of the raw materials that go into Baker Ammonium Thiocyanate, you are always assured of uniform quality, and scheduled availability.

Baker Ammonium Thiocyanate in crystalline form is packaged in 200, 100, and 25-pound fibre drums—all polyethylene-lined. The 50-60% Solution is available in 8000-gallon tank cars. For further information,

address: J. T. Baker Chemical Co., Executive Offices, Phillipsburg, N. J.

\*Picks up moisture...should be kept in tightly closed containers.

### FREE UPON REQUEST!

Valuable, new Ammonium Thiocyanate Product Bulletin. This specification manual gives complete data on the properties and uses of Ammonium Thiocyanate, properties of aqueous solutions of Ammonium Thiocyanate, etc. Address your request to J. T. Baker Chemical Co., Phillipsburg, N. J.



## Baker Industrial Chemicals

*"Purity by the ton"*





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about Aldehyde  
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Costs and Yields?



## Metal Hydrides' Sodium Borohydride

Sodium Borohydride swiftly delivers high-yield, low-cost reductions of aldehydes and ketones . . . using your own standard equipment.

A fine homogeneous powder, amazing MH Sodium Borohydride: won't effect other reducible groups . . . eliminates the need for expensive high-pressure equipment . . . goes right to work at room temperature, under normal atmospheric conditions . . . provides high yields at lower cost in aqueous, alcohol or amine solutions . . . and is water soluble for rapid reductions.

Write now! Your inquiry will bring complete factual information without obligation. Specify Bulletin 502-E.



## METAL HYDRIDES

INCORPORATED

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B & I . . . . .

ments. It hopes to produce synthetic ammonia, nitric acid soon. But there's no chance, New Zealand officials admit, that the Dominion will be entirely free of chemical imports within the next decade—regardless of fertilizer developments.

**Uranium Oxide/Australia:** Pure uranium oxide has been refined in Australia at a pilot plant at Radium Hill and commercial-scale production is expected soon. Cooperating with Australian authorities, the U.S. Atomic Energy Commission is shipping a large uranium plant of U.S. design to Australia—cost to be paid from proceeds of sales of uranium to the U.S. Site of the operation: Rum Jungle, Northern Territory, where large stocks of ore are currently being assembled in preparation for treatment within a year.

## KEY CHANGES . .

**R. H. Burnett**, to manager, raw materials section, central purchasing department, Monsanto Chemical Co., St. Louis, Mo.

**W. George Parker**, to president, The Thibaut & Walker Co., Inc., Newark, N. J.

**Hallett B. Addoms**, to chief engineer, Niagara Alkali Co., Niagara Falls, N. Y.

**Robert M. Moore**, to vice-president, sales, Pittsburgh Coke & Chemical Co., Pittsburgh, Pa.

**William Cage Brady, Jr.**, to chairman of the board, American Enka Corp., New York City.

**William J. Gort** and **Roger Macdonald** to development coordinators, Chemical Div., Koppers Co., Inc., Pittsburgh, Pa.

**John J. Powers, Jr.**, to senior vice-president, and **Jasper H. Kane** and **Thomas J. Winn** to vice-presidents, Chas. Pfizer & Co., Inc., New York.

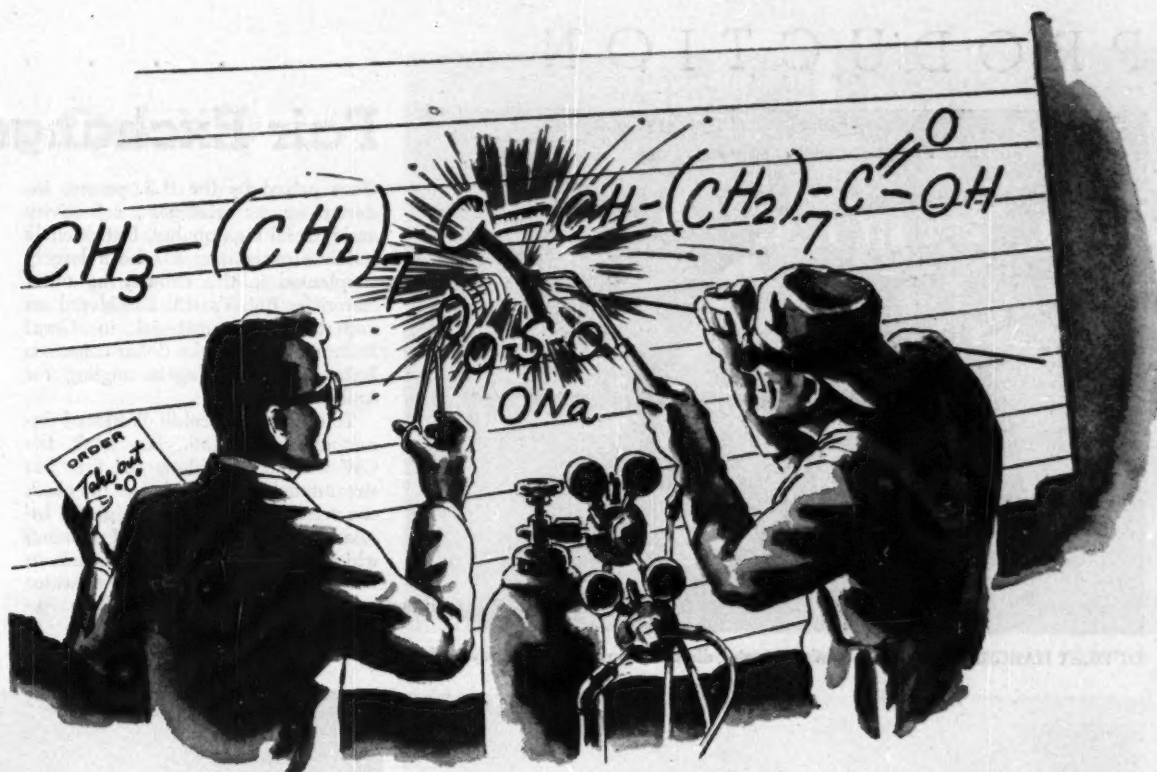
**Paul L. Weller**, to manager, market research, Spencer Chemical Co., Kansas City, Mo.

**Charles Graham**, to director, economic and market research, J. T. Donald & Co., Montreal.

**V. L. Montgomery**, to vice-president in charge of production, Clorox Chemical Co., Oakland, Calif.

D I E D . . . . .

**John H. Perry**, Du Pont Co., (Editor, "Chemical Engineers' Handbook"), in Wilmington, Del.



## MADE TO ORDER

**Acid Stability** is obtained by eliminating the oxygen and establishing a carbon-sulfur bond. This truly **sulfonated** oleic acid, unlike the common **sulfated** oleics, will not hydrolyze in acid solutions. Highly soluble, its effectiveness as a surface active agent improves in acid media.

**SUGGESTED USES** for **SUL-FON-ATE OA-5** include wetting, penetrating, and dispersing in nearly all acidic processing operations. These range alphabetically from A to W (Acid leaching—to Wool carbonization).

Pilot plant or semi-works quantities of this new **SUL-FON-ATE OA-5** are now available. It is produced as a 50% aqueous solution.



Literature and samples upon request.

ORGANIC CHEMICALS DIVISION

TENNESSEE  CORPORATION

617-29 Grant Building, Atlanta, Georgia

# PRODUCTION . . . . .



DUDLEY HARGREAVES (right), firm's managing director, works with Geoffrey Dickin.

## Fair Exchange

Once prized by the U.S. process industry for its whiteness, reflectivity and general high quality, British chalk (calcium carbonate) has been largely supplanted in this country by other materials. But it's still considered an important raw material in Great Britain. And now the dollar-conscious Britons are once again angling for American markets.

Touring the Hornhill Works of Superfine Chalks, Ltd., last week, the CW CAMERA saw how the firm has streamlined its processing so the chalk can regain some of its lost glory. Instead of the old method of refining, which involved the use of 18 pits in which the chalk was ground in water and filtered from pit to pit, Superfine



QUARRY at Bracken in East Riding was once part of "white cliffs of Yorkshire."



QUARRIED CHALK is stockpiled on dry fall days to assure year-round operation.



AFTER CRUSHING, chalk is fed . . .



## for Quality

has installed a new process in which the quarried product is crushed, dehydrated, refined separated further, refined and bagged—continuously. The apparatus for the process was built to specifications laid out by the firm's managing director, Dudley Hargreaves.

As many as 93 grades of material can be turned out without stopping the machinery to change over.

In Britain the chalk is used in the paint and rubber industry. Large quantities are also consumed by the steel industry and in agriculture. A large portion of it also finds its way into markets abroad—and it's those markets that England is now cultivating.



BAGGING completed, it may be sent to domestic industry—e.g., paint (above) . . .



. . . to dehydrating and refining plant.



. . . or it may be exported, like this shipment destined for the Far East.

# AQUAFIL

**Offers You:**

- ✓ **BIGGEST SUPPLY**
- ✓ **BEST QUALITY**
- ✓ **LOWEST PRICE . . .**



## 1 CONDITIONING AGENT FOR COMMERCIAL FERTILIZER

Aquafil is the product stabilizer that ends caking in the bag.



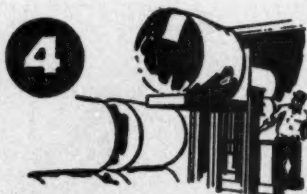
## 2 DILUENT FOR INSECTICIDES

With Aquafil you get high concentration which means savings.



## 3 COVERING AGENT FOR AMMONIUM NITRATE

High absorption qualities make Aquafil an effective agent.



## 4 RESIDUAL FILTERING AGENT IN PAPER INDUSTRY

Impurities rapidly filtered out by Aquafil's action.



## 5 INERT FILLER FOR INSULATION INDUSTRY

Aquafil offers stable, uniform filler for industry needs.

### AQUAFIL PROPERTIES

Density: 9.6 pounds per cubic foot  
Fineness: 95.8% through 325 mesh  
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Inertness: Used by many industries as inert filler  
Suspension: Excellent in water and air

More and more users of diatomaceous earth are turning to Aquafil . . . and finding it profitable. Aquafil offers you a high quality product, from North America's largest level deposit . . . and at less cost. It will pay you, too, when you look into the use of Aquafil as a means of improving your product, as it increases your profit margin. Next time you order diatomaceous earth . . .

**Specify AQUAFIL!**

For Further Information and Prices Write  
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## PRODUCTION . . . . .

### Outside for Weather

If you've been getting long- and short-range weather forecasts from the government charted specifically to your operations, you may have to look to private meteorologists for such services in the future. That's one of the recommendations made by a Dept. of Commerce advisory committee on weather services.

Appointed by Commerce Secretary Sinclair Weeks to look into the diversified activities of the Weather Bureau, the committee delivered its 59-page report last fortnight.

**Forecasts on Requests:** In the past, the government, in response to industry requests, has furnished weather information to companies looking for plant sites, to those about to start plant construction and to those whose future operations are geared to the availability of hydroelectric power. The latter category would include electrolytic caustic-chlorine producers as well as manufacturers of elemental phosphorus and aluminum.

The basic conclusion of the committee's report is that the Weather Bureau has done, on the whole, better than should be expected of it, in view of the funds and facilities it has had available. Nevertheless, it feels the bureau's appropriations should be increased, its activities decentralized.

The committee feels that the federal forecasters have spent a lot of time and money doing this work, urges that the bureau turn over to private or consulting meteorological companies the job of special weather predictions for industry. Assignment of such work to private concerns is recommended as more logical.

On the other hand, the committee thinks that climatology activities—those dealing with large-scale land utilization, water supplies and climatic changes—should be stepped up. This branch, it feels, has been largely neglected.

The committee also recommends that Commerce make a better attempt at supporting the Weather Bureau's budget program. It advocates support by the Secretary of Commerce for projects like a national radar storm-detection network, provision of more facsimile (map making) equipment to field stations, modernization of facilities, research into causes of tornadoes and severe storms and the use of electronic computers in making forecasts.

The report is now under study by Under Secretary of Commerce for Transportation Robert J. Murray, Jr.

since 1926...



## *Glycerine* esterifies phenolic resin

For over 25 years, Rohm & Haas has used Glycerine in the manufacture of its famous "Amberol F-7." This versatile modified-phenolic resin is used in floor varnishes, quick-drying enamels for home decorating and furniture re-finishing, porch and deck paint, and marine finishes.

In the manufacture of Rohm & Haas' "Amberol F-7," a phenolic condensate reacts with Glycerine and rosin to yield a chemically and physically homogeneous, high molecular weight compound. Without this chemical combination with Glycerine and rosin, the phenolic condensate would be insoluble and could not be used in drying oils. Just one more example of the vital part Glycerine plays in the protective coatings industry.

In alkyd resin manufacture, too, America's leading paint manufacturers turn to Glycerine. They prefer its better cooking qualities. They know that Glycerine permits easy control of the manufacturing process to give a product of low acid number, without undue hazard of gelation.

If you'd like detailed information on Glycerine's chemical and physical properties write for your copy of "Why Glycerine for Alkyd Resins and Ester Gums?"—Glycerine Producers' Association, 295 Madison Avenue, New York 17, N. Y.

*Nothing takes the place of Glycerine*





# Point of Integration

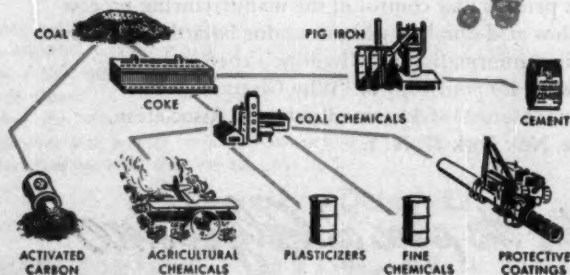
## for a Bridge and a Bug Killer

A few hours ago, this incandescent cascade of coke was 18 tons of bituminous coal. Until we put the heat on it in one of Pittsburgh's 140 coke ovens, it held a tight grip (dating back to the dinosaurs!) on chemicals for a new Pittsburgh insecticide and the basic ingredients for building a steel and concrete bridge . . . to name just a few of Pittsburgh's coal-derived products.

Highly diversified production? Sure, but completely integrated too. For the steady growth of Pittsburgh Coke & Chemical Company has always followed the natural flow of integrated production.

Today, in our 25th Anniversary Year, the operation of each of Pittsburgh's ten divisions is meshed in one highly coordinated production pattern. The company's customers, perhaps more than anyone else, know the ultimate benefits of this unique production position: Assured product quality and dependable, continuing supplies . . . because Pittsburgh is *basic*.

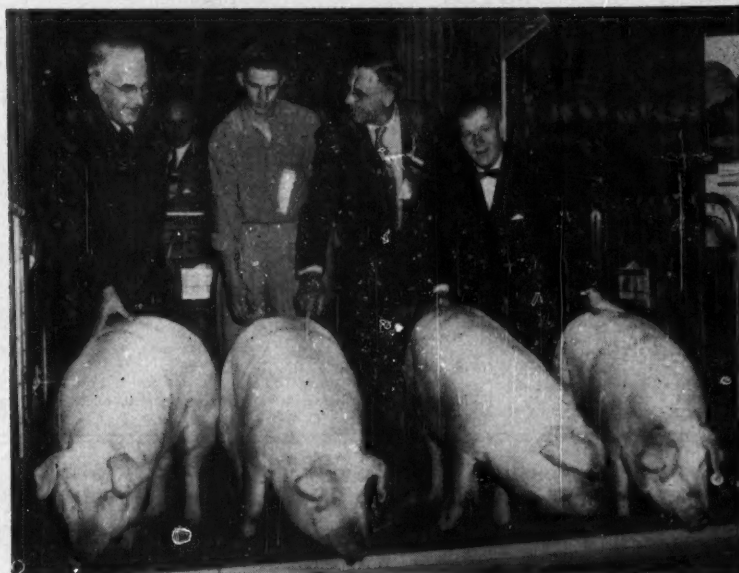
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# DISTRIBUTION . . . . .



CHAMPS: Iowa's Governor Beardsley (l), Pfizer's McKean (r) visit Chester Whites.

## Hogs Have Their Day

The place: the plush Normandie lounge of the Conrad Hilton hotel in Chicago. The occasion: the live-hog judge-off finals of the 1st Annual Pfizer Hog Judging Contest. The "guests": Duroc, Hampshire, Poland China and Chester White hogs—four each.

No ordinary hogs, these particular animals, ranging in age from 5 to 5½ months and weighing an average of 272 lbs., had been especially raised for this contest on the experimental farm maintained by Chas. Pfizer & Co. just outside Terre Haute, Ind.

Pfizer sponsored the contest "to introduce thousands of new feeders to the advantages of feeding a good pig starter." And, as makers of Terramycin and other antibiotics used in animal feed supplements, the firm had special reason for focusing interest on its scientifically raised hogs.

With interest at top pitch, Pfizer understandably plugged its product. Visitors at the show were urged to see for themselves that "Terramycin pays off in bigger pigs," were also advised that the porkers "reached market weight 17 days sooner."

In order to generate a wide response to pig feeding, and at the same time to keep the judging within manageable proportions, Pfizer had run off the preliminary elimination round on a paper basis. Entry blanks,

bearing photographs of hogs, had been made available at leading feed stores throughout the country.

Each contestant needed only to rate four representatives of each of four breeds, turn in his blank, to-

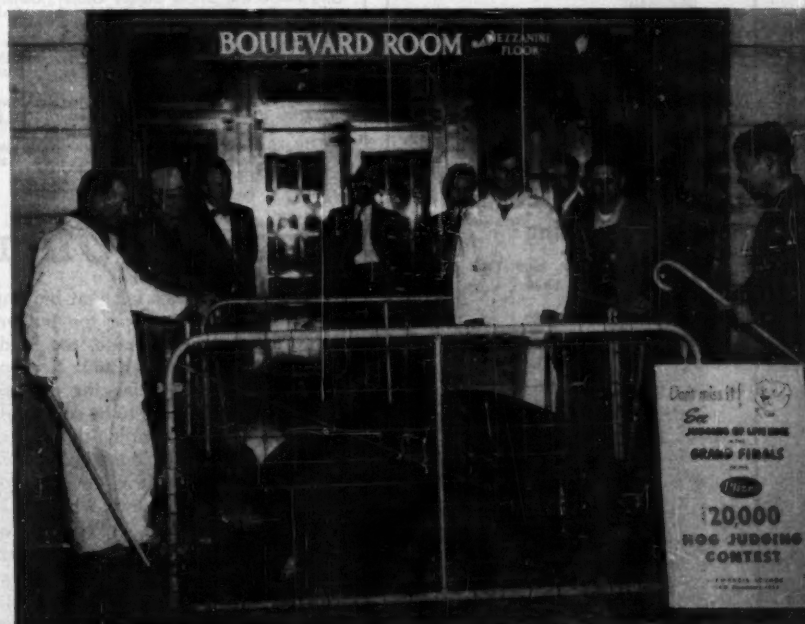


HILTON'S NORMANDIE LOUNGE: An unlikely spot for porcine guests.

gether with the analysis tag from a bag of pig starter-feed (any brand), and hope that his judgment matched that of the official judges.

Lure was the sponsor's promise of 409 prizes (totaling \$20,000) plus 24 all-expense trips (for the finalists) to the International Live Stock Exposition in Chicago.

About 10,000 hog-raisers answered the call.



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## DISTRIBUTION. . . . .

### Where to Sell to Defense Dept.

Item	Code	Item	Code	Item	Code
Industrial alcohol	NPO: TAPD	Freon, anhydrous ammonia, helium, hydrogen, nitrogen, oxygen	MAFD	Naphtha solvents, rust-preventive compounds, petroleum waxes, chemical specialties	(J) ASPPA
Medicinal alcohol	(J) ASMPA	Insecticides, rodenticides, repellants	(J) NPO	Natural mineral waxes	NPO
Decontaminating agents	(J) NYCPD	Cleaning, polishing compounds	NYQPA: QGUSMC; NPO: MCDS Philadelphia; MCDS San Francisco	Abrasive materials	CPOCE: QGUSMC; GSSO: MCDS Philadelphia; MCDS San Francisco; WRAFD
Antifreeze compounds	(J) RA, Metuchen, N.J.	Chemical bombs and components	(J) CCRPA: DCPD: NYCPD: CCPD	Chemical laboratories, instruments, apparatus	(J) NYCPD
Basic chemicals	NYCPD; NPO; ASO	Rockets and components (including jato)	RA, Huntsville, Ala.; BO	Medicinal chemicals, drugs, biologicals, botanicals, alkaloids, x-ray developers	(J) ASMPA
Calcium chloride	NYDCE	Chemical warfare agents	(J) NYCPD: CCPD	Vegetable gums, resins, rubber	NPO; GSSO
Calcium hypochlorite	(J) NYCPD	Asphalt, related materials, bituminous basic products, lime	(J) CPOCE	Refractories, fire-surfacing materials	GSSO
Chlorinated lime	NYCPD	Piezo-electric crystals	SCSA; GAFF	Paint, varnish, related products	(J) ASO
Chlorinated paraffin	(J) CCPD: SFCPD	Electrical insulating materials	PDCE; SCSA; GAFF		
Photographic chemicals	(J) RAFF				
Acetylene, carbon dioxide, liquefied	PDCE; QGUSMC; MAFD				

### KEY TO CODE

(J)—Joint Procurement for Army, Navy and Air Force  
ASMPA—Chief, Armed Services Medical Procurement Agency, 84 Sands St., Brooklyn 1, N.Y.  
ASPPA—Executive officer, Armed Services Petroleum Purchasing Agency, Washington 25, D.C.  
ASO—Aviation Supply Officer, Aviation Supply Office, 700 Robbins Ave., Philadelphia 11, Pa.  
BO—Chief, Bureau of Ordnance, Dept. of the Navy, Washington 25, D.C.  
CCPD—Commanding Officer, Chicago Chemical Procurement District, 226 W. Jackson Blvd., Chicago 6, Ill.  
CCRPA—Commanding Officer, Chemical Corps Research Procurement Agency, Army Chemical Center, Md.  
CPOCE—Chief, Chicago Procurement Office, Corps of Engineers, 226 W. Jackson Blvd., Chicago 6, Ill.  
DCPD—Commanding Officer, Dallas Chemical Procurement District, 1200 Jackson St., Dallas 2, Tex.  
GAFF—Commander, Gentile Air Force Depot, Dayton, O., Attention Director of Procurement  
GSSO—General Stores Supply Officer, General Stores Supply Office, 700 Robbins Ave., Philadelphia 11, Pa.  
MAFD—Commander, Middletown Air Force Depot, Olmstead Air Force Base, Middletown, Pa., Attention Director of Procurement  
MCDS, Philadelphia—Depot Quartermaster, Marine Corps Depot of Supplies, 1100 S. Broad Street, Philadelphia 46, Pa.  
MCDS, San Francisco—Depot Quartermaster, Marine Corps Depot of Supplies, 100 Harrison St., San Francisco 6, Calif.

NPO—Officer in Charge, Navy Purchasing Office, 111 E. 16th St., New York 3, N.Y.  
NYCPD—Commanding Officer, New York Chemical Procurement District, 180 Varick St., New York 14, N.Y.  
NYDCE—District Engineer, New York District, Corps of Engineers, 80 Lafayette St., New York 13, N.Y.  
NYQPA—Commanding Officer, New York Quartermaster Procurement Agency, 111 E. 16th St., New York 3, N.Y.  
PDCE—District Engineer, Philadelphia District, Corps of Engineers, P.O. Box 8629, City Centre Bldg., 121 N. Broad St., Philadelphia 1, Pa.  
QGUSMC—The Quartermaster General, Headquarters, U.S. Marine Corps, Dept. of the Navy, Washington 25, D.C.  
RA, Huntsville, Ala.—Commanding Officer, Redstone Arsenal, Huntsville, Ala.  
RA, Metuchen, N. J.—Commanding Officer, Raritan Arsenal, Metuchen, N.J.  
RAFD—Commander, Rome Air Force Depot, Griffis Air Force Base, Rome, N.Y., Attention Director of Procurement  
SCSA—Commanding General, Signal Corps Supply Agency, 225 South 18th St., Philadelphia 3, Pa.  
SFCPD—Commanding Officer, San Francisco Chemical Procurement District, Bldg. 1, Wing 3, Oakland Army Base, Oakland, Calif.  
TAFD—Commander, Topeka Air Force Depot, Topeka, Kan., Attention Director of Procurement  
WRAFD—Commander, Warner Robins Air Force Depot, Robins Air Force Base, Macon, Ga., Attention Director of Procurement

## Defense Unsnarls Buying

Companies that once felt that bidding on defense contracts was too bothersome, too full of red tape, too muddled, are taking a closer look. Reason: when sales curves are slugging, government contracts are not to be sniffed at. This week, for example, dyemakers were preparing bids on 262,000 lbs. of the yellow dye auramine hydrochloride. True, this single invitation is a small part of over-all defense procurement, but it's a significant part of the production of the dye—equivalent to 22% of 1952 production.

But while sellers still complain about government contracts vis-à-vis

industry sales, at least one complaint is less justified. The new top management of the Defense Dept. is revamping procurement operations so they'll make more sense to the defense suppliers.

Last week, Defense took the wraps off one end product of its efforts—a consolidated list of who buys what and where. Chemical highlight: an outline of 28 classes of products and the 26 purchasing centers where they are bought (see table). In 14 of these classes, procurement for all services is handled by a single center—or at least a group of related ones.



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**You'll Get Prompt Delivery**

When you depend on *International* for your supplies of carbonate of potash, you'll get prompt deliveries. The tonnages you need.

The purity and uniformity, the grade, density and particle size you must

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**HYDRATED**—83 to 85%  $K_2CO_3$ . Available in 100 lb. bags and 400 lb. barrels.

**CALCINED**—99 to 100%  $K_2CO_3$ . Available in 100 lb. bags and 375 lb. barrels, and bulk in minimum carloads.

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*This is only a partial listing of the items we offer*  
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## DISTRIBUTION . . . . .

There are still some loose definitions, though. While the Rome, N.Y., Air Force Depot has joint-service responsibility for buying photographic chemicals, the Army's New York Chemical Procurement District—responsible for basic chemicals—last week asked bids on 2,123,500 lbs. of photo-grade sodium thiosulfate.

Too, while the Navy's Aviation Supply Office has charge of joint procurement of paint, varnish and related materials, the Mallory (Memphis, Tenn.) and Topeka Air Force Depots this week were accepting bids on 3.5 million lbs. of alkyd resin, plus quantities of aircraft gloss, camouflage, quick-drying and heat-resistant enamels.

It's a good bet, though, that the men under C. S. Thomas, who was brought in to fill the newly created post of Assistant Secretary of Defense for Supply and Logistics, will be closely scrutinizing any illogical duplications with an eye to finding new ways to simplify procurement.

**Time Saver:** To save pharmacists time in counting and bottling capsules, Lederle Laboratories is now using a new packaging form called Century-Pak. Lederle heat-seals 100 capsules or tablets in a polyethylene bag, says it facilitates bulk shipments, storage.

**Atlanta Office:** Hercules Powder Co.'s synthetics department has established a sales office in Atlanta, Ga. A sub-office of the Wilmington district, its manager will be John F. Copeland.

**Ohio Warehouse:** Allied Chemical & Dye Corp.'s Nitrogen Div. has awarded a contract to Luria Engineering Co. of Bethlehem, Pa., for the construction of a 14,400-sq.-ft. standardized steel warehouse at the division's plant in South Point, O. Construction is expected to be completed by Mar. 1.

**Tampa Terminal:** A new port facility for liquefied gas has been opened in Tampa, Fla., by Warren Petroleum Corp. of Tulsa, Okla. It has a capacity of 1-million gal. The company distributes to bottled gas retailers.

**West Coast Appointment:** Schenectady Resins, division of Schenectady Varnish Co., Inc., has named R. E. Flatow & Co. of San Francisco, Calif., as its West Coast representative.

**Papermaking Story:** Hudson Pulp & Paper Corp. has just published a 46-page booklet on the manufacture of multiwall sacks. It covers the opera-



For many years this non-toxic acid has served as the leading organic acidulant in foodstuffs ...beverages, candies, jellies, desserts. Now, more and more industries are finding Pfizer Citric Acid and its derivatives ideal for a variety of processes far-removed from the "kitchen."

Take metal finishing for example. Because it removes oxide films with a minimum loss of virgin metal, you'll find Citric Acid used in polishing and cleaning processes. Di Ammonium Citrate is finding increasing use in the removal of iron contamination from stainless steel and rust scale from iron surfaces.

Because it forms water soluble complexes with metallic ions such as iron and aluminum, Pfizer Citric Acid serves as an excellent sequestering agent in processes where metals precipitating out of solution cause trouble...industrial water treatment, leather tanning, edible oil production, 2,4-D formulations.

Since it contains one hydroxyl and three carboxyl groups, Citric Acid as an intermediate for organic synthesis offers many interesting possibilities. And, esters of Citric Acid...several of them marketed commercially by Pfizer...offer the plastics industry non-toxic plasticizers with a range of desirable characteristics.

These varied applications may suggest mild, versatile citric as an acid or intermediate in your processing. For additional information, write:

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# CITRIC ACID

Check These Industrial Uses



Manufacturing Chemists for Over 100 Years

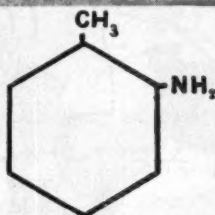
**Pfizer**



## CHEMICALS AND INTERMEDIATES TO MEET YOUR REQUIREMENTS

### o-Toluidine Technical

M.W. 107.2



#### DESCRIPTIVE INFORMATION

This intermediate is a clear, light yellow oil which may darken on storage. It is completely soluble in 10% hydrochloric acid, soluble in ether and alcohol, and sparingly soluble in water. Traces of nitrotoluenes and isomers may be present as impurities. o-Toluidine Technical is available in commercial quantities.

#### SPECIFICATIONS

o-Toluidine Technical is produced to these specifications: Purity . . . 99.5% minimum

Distillation Range . . . It shall distill 5 to 95 cc between 1.0°C., including the temperature 200.2°C., corrected to 760 mm.

#### SUGGESTED USES

Opportunities for use of o-Toluidine Technical include application as an intermediate in the synthesis of rubber chemicals, dyes and pharmaceuticals. It may be interesting as an absorbent for SO<sub>2</sub> and SO<sub>3</sub> waste gases.

### DO YOU NEED A SPECIFIC INTERMEDIATE?

**A WIDE VARIETY** of chemical intermediates is now available from the Du Pont Organic Chemicals Department. It will pay you to evaluate these products for your manufacturing processes.

**A NEW INTERMEDIATE?** We have the facilities to produce specific intermediates . . . perhaps one that will meet your exact requirements. Our technical men will be glad to study your problems and work with you in product development.

**A REQUEST** on your company letterhead will bring complete information. Just write to E. I. du Pont de Nemours & Co. (Inc.), Organic Chemicals Dept., Chemicals Div., Wilmington 98, Del.



BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

**ORGANIC  
CHEMICALS DEPARTMENT**

#### DISTRIBUTION . . . . .

tions of Hudson's recently constructed mill at Palatka, Fla.

**Dicalcium Phosphate:** Monsanto Chemical Co. now makes 21% feed-grade dicalcium phosphate at its Carondelet plant in St. Louis Mo. According to Monsanto, the added capacity will not affect present production of the product in the 18 and 21% strengths at its Trenton, Mich., plant.

**Fine Chemicals:** General Chemical Div., Allied Chemical & Dye Corp., has completed a one-story warehouse and distributing station at its Hedges Works, Kennewick, Wash., to handle its Baker & Adamson laboratory reagents and fine chemicals. General claims to be the first major manufacturer to stock fine chemicals in the Pacific Northwest.

**Glass Fibers:** Pittsburgh Plate Glass Co. has purchased a four-story factory building with 75,000 sq. ft. of floor space, together with seven acres of land, adjoining the firm's fiber glass plant at Shelbyville, Ind. Pittsburgh Plate will use the building to expedite warehousing and shipping of glass fibers, which it began manufacturing at the Indiana location last year.

**Sodium Lauryl Sulfate:** Rohm & Haas is now offering two forms of sodium lauryl sulfate: a low-salt liquid (Triton AS-30) and a paste (Triton AS-35).

**Polyethylene Specifications:** The Picatinny Arsenal, Dover, N. J., is the qualifying agency for these government specifications on polyethylene packaging: Interior Packaging Bags (JAN-P-117), and Polyethylene Plastic Molded and Extruded Shapes, Sheets and Tubing (MIL-P-3803). Proposed specifications: Greaseproof, Waterproof Barrier Materials (MIL-B-121A) and Waterproof, All-Temperature Flexible Barrier Materials (MIL-B-00125 (ORD)).

The Naval Air Experimental Station, Philadelphia, Pa., is the qualifying agency for the specification Water Vaporproof Barrier Material (MIL-B-131B).

**Vinyl Film:** The Superintendent of Documents has now made available Commercial Standard CS192-53 on methods of test and requirements of general purpose plain or embossed vinyl plastic film. This standard was established by the U.S. Dept. of Commerce at the request of the Society of the Plastics Industry.



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December 26, 1953 • Chemical Week

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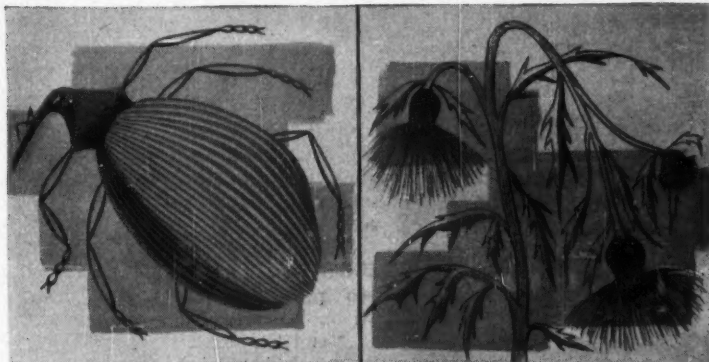
A year ago, Armour oleic acids proved convincingly that they could keep manufacturers ahead of competition with better products at no extra cost. The high stability of these oleics, which was proved by the Mackey Test then, meant longer life, longer freshness to cosmetic, shampoo, soap, wax, and textile products.

Now, a year later, Armour chemists report that these superior oleic acids have withstood a year of package life with no change! They have resisted oxidation and rancidity; they still have excellent color; and they still have low unsaponifiable and high acid value. This means that soaps made with Armour oleics may be kept under constant heat for weeks and still smell as fresh as the day they were made. This stability means that textile fabrics scoured and finished with Armour oleics will have no trace of unpleasant odor. It means any product made with Armour oleics will last longer and stay fresh longer. This longer shelf-life is possible because Armour produces oleics by a new low-temperature crystallization process.

Armour's superior oleics, covering all grades you need, offer this longer shelf-life for your products at competitive prices. Send the coupon now for further information and current price quotations.







### New Armour emulsifier works with both herbicides and pesticides

For the formulator of agricultural sprays, the emulsifier he uses is one of his most important raw materials. He must turn out consistently stable emulsions that are easy to apply and that carry the highest possible toxicant concentration.

But to solve some of his own problems, the formulator wants to keep his stocks of emulsifiers low, and use as little labor and time in making up sprays as possible.

An emulsifier which will work effectively with both herbicides and pesticides seemed a good way to solve the formulator's problems—and the chemists in Armour's Agricultural Laboratory have developed just that—a dual-purpose emulsifier!

Emulsifier 1869 is a combination of surface active agents blended to give maximum emulsifying properties and stability in soft and hard water. Emulsifier 1869 works effectively with both herbicides and pesticides in smaller quantities than other emulsifiers!

This new double-duty emulsifier has proved to be effective and economical for emulsifying Toxaphene, Chlordane, Lindane, DDT, Isopropyl ester of 2, 4-D, Butoxyethanol ester of 2, 4, 5-T, and other herbicides and pesticides. Your own tests will convince you of the advantages of Emulsifier 1869. Send the coupon on your letterhead for free samples.

### Special fatty acid from coconuts gives extra gentleness to shampoos

Here at Armour Chemical Division Laboratories, nature keeps coming in to give us a hand in our job of helping you manufacture better products for living. This time it is in the form of a special coconut fatty acid which will help you add extra gentleness to shampoos.

Neo-Fat® 255 (Stripped Coco) is ideally suited for shampoos and other products that require pleasant, soothing contact with the skin because it does not contain the irritating low molecular weight fatty acids (Capric, Caprylic, Caproic). These smooth, bland characteristics of Neo-Fat 255 will also help you in manufacturing better liquid hand soaps, fat liquors, and softening agents.

Another superior coconut fatty acid, Neo-Fat 265 (double-distilled), is proving



extremely effective and economical in the manufacture of textiles.

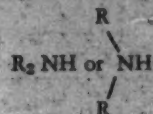
These low-priced fatty acids are available in 55-gallon drums and aluminum tank cars. Send the coupon with your letterhead for free samples of Neo-Fats 255 and 265, and for the booklet which gives further information on all of our coconut fatty acids for industry.

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### First Time Unsaturated Secondary Fatty Amines Ever Offered To Industry!

Two new unsaturated secondary amines produced from tallow and soya are now available for your testing. These are the first *unsaturated* secondary fatty amines to be offered to industry. These compounds are identified as Armeen® 2T and Armeen 2S respectively and have the following general configuration:



Because of the unsaturation in both compounds, these two secondary amines are more easily liquefied than the corresponding saturated secondary amine (Armeen 2HT), and will show better solubility in organic solvents.

These products are so new that possible uses have not yet been explored extensively. However, the chemist acquainted with the reactivity and polar substantivity of amines and their derivatives will recognize the potentialities of Armeen 2T and Armeen 2S in corrosion inhibitors, lubricant additives, rubber processing, textile treating compounds, emulsifiers and de-emulsifiers, etc.

Samples of both of these new secondary amines are available for your testing. We will be pleased to give you technical assistance in using these products.

#### MAIL THIS COUPON WITH YOUR LETTERHEAD

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Please send me:

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| <input type="checkbox"/> Oleic acid information and prices |                                      |
| <input type="checkbox"/> Coco Fatty Acids Booklet          |                                      |
| <input type="checkbox"/> Armeen 2S—Armeen 2T Data          |                                      |
| <input type="checkbox"/> Emulsifier 1869 and Data          |                                      |
| <input type="checkbox"/> Armeen 3 Samples                  | <input type="checkbox"/> Neo-Fat 255 |
| <input type="checkbox"/> Armeen T Samples                  | <input type="checkbox"/> Neo-Fat 265 |

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# SPECIALTIES . . . . .



CARRIED in by men and beasts, spruce trees begin their treatment.

## Christmas Tree Bonus

More than the lights and tinsel of the Christmas trees puts a gleam in the eyes of certain members of chemical industry this year. There's now a dependable business in providing chemical sprays for trees.

Of the 30 million trees sold this holiday season—valued at more than \$50 million—nearly half will have some

sort of chemical treatment. These treatments range from complete assembly-line dipping at an eight-story factory to home-sprayed applications of acrylic-based aerosol snows.

Coating Christmas trees has a strong commercial motivation, if you're selling them. A natural, 6-8 ft. tree sells for about \$3. Coated to im-

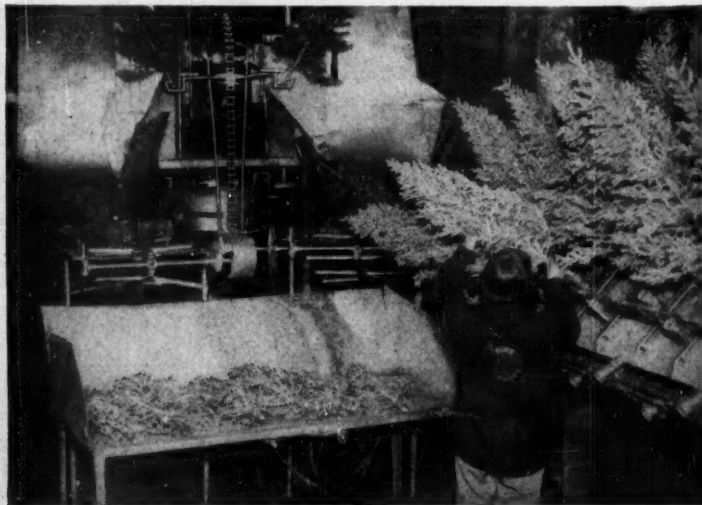
part flame-resistance, to add color and gloss, and to reduce needle loss, a similar-size tree can bring as much as \$25.

**Santa's Helpers:** About 2.25 million of the precoated trees will come from two processing plants at Duluth, Minn., operated by Kirk-Minnesota Co.\* and Halvorson Trees, Inc. Jerry Raymond, a chemical engineer who's now manager of Kirk's gift box and evergreen divisions, designed both plants.

Operating almost year-round, they each consume annually an estimated 250,000 gal. of coating—a special low-monomer pentaerythritol ester in a nontoxic polyvinyl latex base. Despite its \$1-million value, that's a small quantity of chemicals compared with the volume that would be used if the trees were dealer-treated. Precise dipping and recycling equipment, custom-designed for Kirk and Halvorson, permit the economy.

Treatment at these plants, however, is currently limited to northern Minnesota's stunted black spruce. Growing uniformly to a height of 3 ft., it is good only for Christmas trees, and then only if chemically treated. The latex-based coating forms a semiporous "bag" around each needle, and is so effective in preventing shedding that trees can be kept in cold storage for as long as nine months.

**Assembly-line Spruce:** In the Duluth plants, trees are carried on end-  
\*Subsidiary of G. R. Kirk Co., Tacoma, Wash., generally regarded as the largest of all Christmas tree producers, operating "wherever trees are grown."



ENDLESS CHAINS pull trees through dip tanks, centrifuges, drying tunnels. Shedproof, flame-resistant, covered with "snow", the trees emerge (left) ready for nutrient-containing base.



**BAUBLES**, lights, and tinsel are all that's needed now.

less chains through tanks holding a mixture of the coating and fungus-killing chlorinated phenols. Excess latex is centrifuged off and recycled; the trees move into a 60-hp. drying tunnel where blasts of hot air set the latex film. Each tree then receives a hollow metal base containing a mixture of glycerine, monosaccharides and formaldehyde, which feeds the tree for several months.

Although Raymond believes that some day all Christmas trees (not only the black spruce, but also firs, balsams, and others not now treated) will receive a chemical bath for decoration and flame-resistance, he admits that present Duluth plants probably aren't the ultimate answer to the coating problems.

For one thing, the plants are limited by the availability of trees. Another restriction is that only trees of uniform size can be processed—and though considerable experimentation has been carried out on the West Coast in growing firs on lowland farms to 3-6 ft. heights, it's not commercial practice now.

Such trees would be no bonanza from the chemical market standpoint. Because they're hardy, they would require minimal treatment—perhaps just flameproofing and hormone treatment. Even now, only a small portion, (about 100 car loads of Kirk's annual shipments of over 2,000) get the full processing. A low-cost treatment that would be effective on all trees, however, could boost the market for chemicals nearly 20-fold, Raymond estimates.

Plant cost is still very high (at least \$200,000 for facilities capable of processing 23,000 trees a day), and location is dependent on tree availability and favorable freight rates.

**Green Glamor:** While the producer coats trees mainly to get them to market in good shape, the dealer does so to increase their sales appeal. An estimated 10 million trees are treated annually on the sales lot, at a cost to the buyer of 50¢-\$1/foot.

Virtually every lot these days has a spray gun—a tool relatively unknown 10 years ago. With it, the seller can put on a coat of polyvinyl chloride/acetate latex (56¢/lb.), follow it with a dusting of granular ammonium phosphate. Chlorinated waxes are often added to provide better protection; and coatings of rayon flock (at \$1/lb.) up to an inch thick make a good "snow."

Biggest argument against spraying on the lot is the tremendous waste of materials. Spraying trees is like spraying a window screen—there's an 80% loss in overspray. Yet in cases where preservative treatment is not needed, the big producers have been reluctant to apply decorative and flame-retardant coatings in their plants. Reasons: the variety in tree sizes and the tremendous drying problems—even a 3-ft. tree is a terrific windscreen. But most producers encourage the retailer to coat the trees as soon as he gets them, are willing—even anxious—to provide material and know-how.

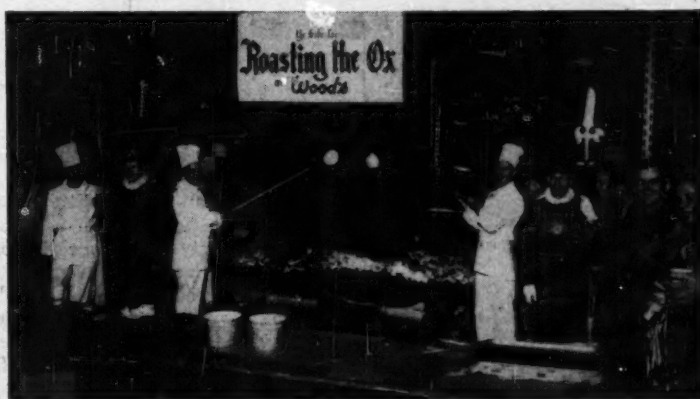
**Home Coat:** Helping put the coating idea across are state laws—such as

California's—that require flameproofing of trees that are exhibited in public places. And the safety consciousness behind such regulations encourages individuals to follow suit on trees in their homes.

Even if they don't want to buy a treated tree, householders can decorate and improve the flame resistance of their trees with aerosol "snow-makers." Typical products sell for \$1, give 12-oz. of "snow." These units have proved big sellers since their introduction in time for Christmas of '51. This year an estimated 10 million will be sold.

**More Ways Than One:** Christmas tree growing and selling has become a profitable outlet for chemicals. A big producer "farms" his trees with close attention to scientific methods of growing.

Fertilizers are widely employed on Christmas tree growing lands to hasten the growth of the trees. Some firms have experimented with herbicides; spread by aircraft while the trees are still young, the weedkillers affect broadleaf plants more than conifers, and thus kill the underbrush that might otherwise choke out the evergreens. And after cutting, there's the need for coating chemicals. All in all, Christmas brings, in a variety of ways, good cheer to the chemical industry.



## Roast and Toast

NO COMMON event is an Olde English Ox Roast, especially when it's held in Canada. This recent one stemmed from the efforts of specialties manufacturer Geoffrey Wood, of Toronto. To insure the roast's success, four of Toronto's leading chefs were hired to supervise the roasting and carving of the

ox, which weighed 1,500 lbs. The actual roasting consumed four tons of coal blended with coke and charcoal, and took 14 hours. Amount of roast each person consumed: 1½ lbs.

Toasted, too, was Her Majesty, Queen Elizabeth II. Because of the enthusiastic reception by company employees, Wood plans to make the Roast an annual affair.



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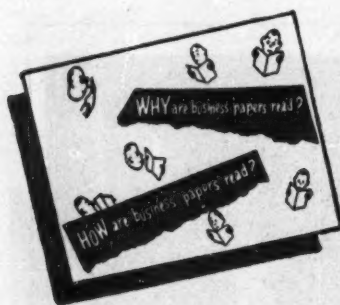
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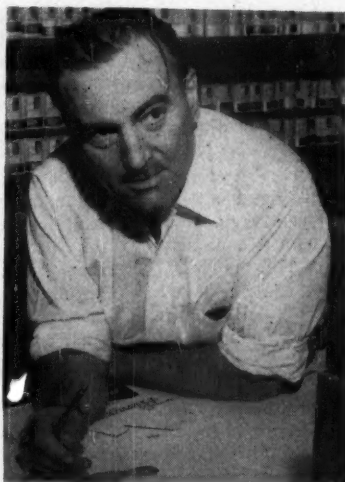
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## SPECIALTIES. . . . .



**CHARLES ROLLEY:** His province, wherever the sun shines.

### Lotion Moves East

Vacationers in Florida this winter are going to be introduced to a new suntan lotion, Sea and Ski. By the time summer arrives, it will be marketed along the whole East Coast.

That's the plan of its maker, San Francisco perfumer Charles Rolley. His optimism about cracking Eastern markets is based on the product's record sales in the West last year. To illustrate, Rolley claims that in northern California, where the promotion was heaviest, 90% of all suntan lotion users bought Sea and Ski. And in southern California Rolley's wholesalers report the product grabbed half the sales.

**Slump-Born:** Sea and Ski was born in 1946 when Rolley's perfume business was in postwar doldrums. A salesman for an aromatic and chemical company persuaded him to buy a small quantity of sunscreen ingredient, and another salesman suggested the name, which, incidentally, Rolley believes is an important psychological factor in its success.

According to Rolley, Sea and Ski consists of "a very sensitive formula that's hard to copy. It's made of glycerine (8½%), a substantial quantity of lanolin (9%), sesame oil, and other key ingredients."

In the beginning the lotion was marketed only in Rolley's San Francisco store. When it proved to be a seller, he advertised for someone to handle sales promotion. One applicant said he'd take on the line if Rolley got 100 drug store accounts.

"I decided," Rolley recalls, "that if I had 100 drug stores I wouldn't need him. So I lined up 150 inde-

pendent drug stores within a month, and followed this with newspaper advertising."

Now West Coasters can get it not only in drug stores but also when they buy their groceries and at the beach. Other areas where it's sold: Salt Lake City, Portland, Ore.; Houston, Chicago, Milwaukee, St. Paul, Minneapolis. A place where it's flopped is Oklahoma City. Rolley's reaction to Oklahoma City: "Where can you go to take off your clothes, unless you're going to take a bath?"

**Protection for a Price:** Sea and Ski is more expensive than most suntan products, but Rolley doesn't believe price is a problem—within reasonable limits. Last year it racked up a big sales record in Los Angeles although a 4-oz. bottle was priced at \$1.35. Competing items were priced at 79¢ and \$1.

This year the price of the 4-oz. plastic bottle was reduced to \$1.19, a 4-oz. glass was sold at 98¢, a 2-oz. Weekender glass at 59¢.

Despite its catchy name, skiers account for only a small amount of the business. Reason: unlike sunworshippers, skiers use it only on their faces.

Burgeoning sales are forcing Rolley out of his small San Francisco factory into a new plant in South San Francisco. The guess for next year's sales is 1½ million bottles, but the new factory will be geared to produce 2½ million. For the Eastern market, Rolley expects to bottle, label, warehouse and ship from New York to save freight, avoid fire hazards and labor problems.

Even if Rolley successfully slides his product into the East, he has no intention of relaxing. Next month he'll start promoting a new hair dressing, En Garde.

**For Drivers:** Edison Chemical Co. (Chicago, Ill.) has come out with "Driv-A-Lert," a coffee-flavored caffeine pill aimed at keeping drivers awake. It is malted-milk-based, is neither a depressant nor habit-forming, the company says.

**Combination:** Harshaw Chemical Co. is building a 25,000-sq.-ft. combination office and warehouse in Chicago, Ill. It's expected to be completed about March 1.

**Information Program:** The National Agricultural Chemicals Assn. has inaugurated a herbicide program to collect and disseminate information on weeds and on chemicals used in their control. "We want to bring to the attention of farmers the economic

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# TRIBUTYL PHOSPHATE

## ANTI-FOAM AGENT

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## SPECIALTIES. . . . .

gains that are possible through the use of these chemicals," says Lea S. Hitchner, executive secretary of the association.

**Blackstrap Stripper:** Latest trick in the use of blackstrap molasses is to employ it for derusting metals. Edward S. Griddle, Columbia, Tenn., has just patented (U. S. 2,661,314) a process for cleaning metal by soaking it for six days in molasses dissolved in water, then rinsing it in a sodium bicarbonate solution.

**Boric Oxide:** A recent CW issue inadvertently listed the American Potash & Chemical Corp. weed killer, Tronabor, as containing 13.7% boron and 44% boric oxalate. This should have read 13.7% boron and 44% boric oxide.

**Royal Start:** The first annual meeting and conference of the newly incorporated Canadian Agricultural Chemicals Assn. will be held at the Royal York hotel, Toronto, Ont., Feb. 19.

**Plastic Putty:** A plastic putty for making re-usable spray masks, stencils, and holding fixtures is now being manufactured by Chemical Development Corp., Danvers, Mass. Called CD Spray Mask A, it's supplied as a putty, requires no heat or pressure.

**Expansion:** American Dyewood Co. (Belleville, N.J.), subsidiary of United Dye & Chemical Corp., is expanding its operations in cement colors and allied fields, has launched its promotion with a brochure on a new series of colors tradenamed Nycoline. They're in eight shades, are fast to alkali.

**Philippine Purchase:** Motomco Inc. (New York) says that the Philippine government has purchased 46,200 lbs. of Pival Concentrate, an anticoagulant, which will be used in an extensive rodent control program.

**Four-in-One:** Recently introduced in the East by the California Oil Co., subsidiary of Standard Oil Co. of Calif., is RPM 10-30 Motor Oil, claimed to be effective "winter and summer, and capable of increasing gasoline mileage as much as 15% in stop-go driving." The company says it combines the fourfold advantages of 10-W, 20, 20-W and 30 SAE grades. The more-miles-per-gallon feature stems from special compounding that reduces the fluid friction of the oil as well as the friction between engine parts.



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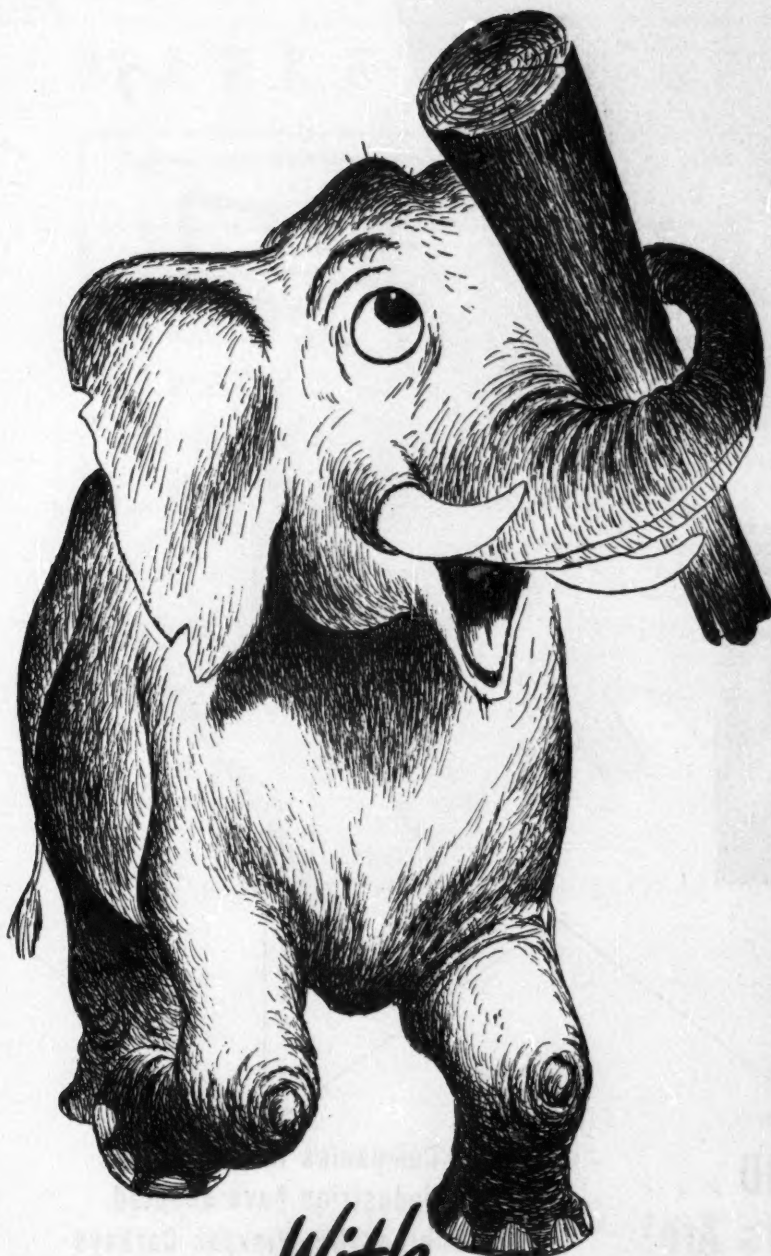
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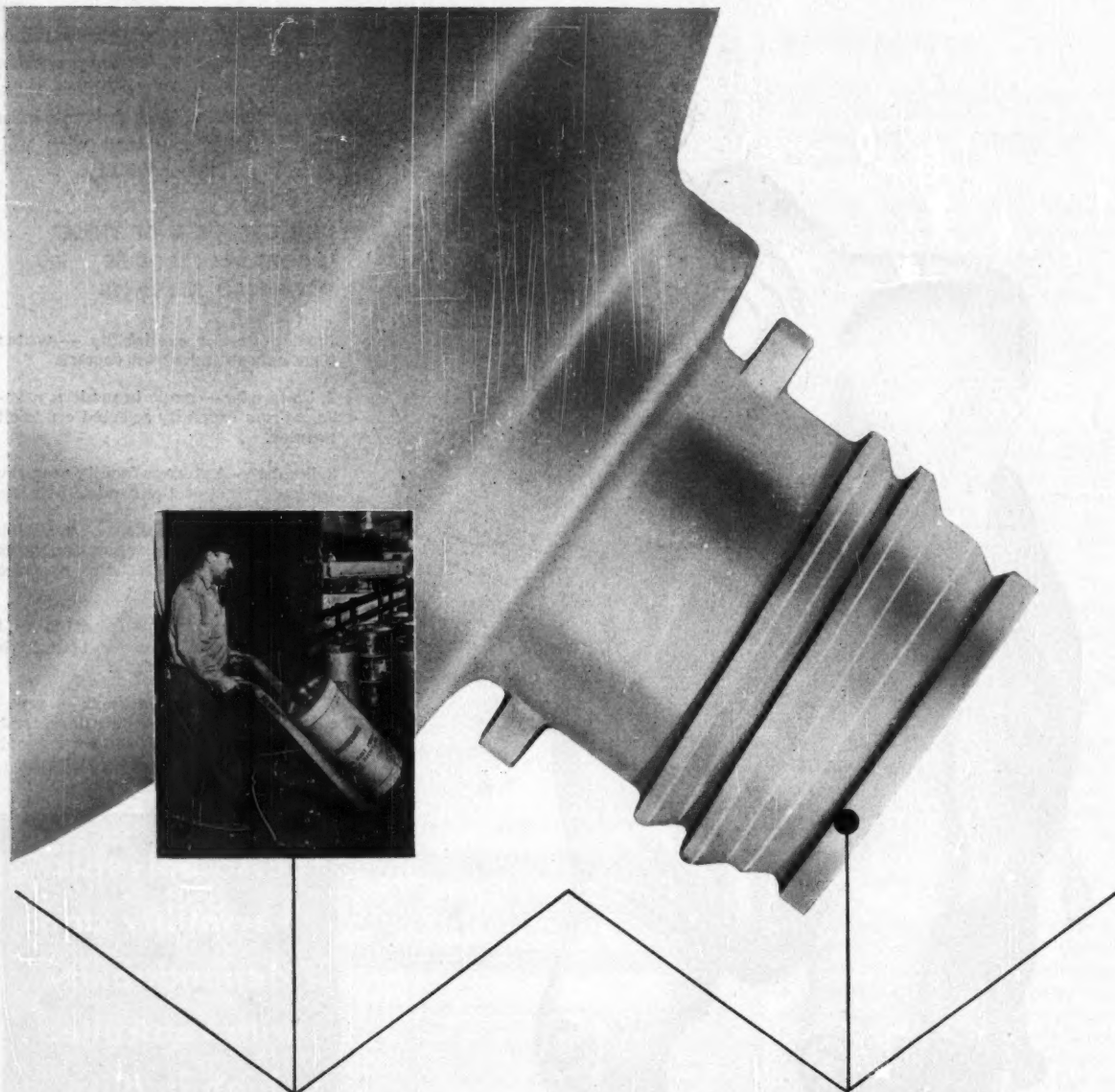
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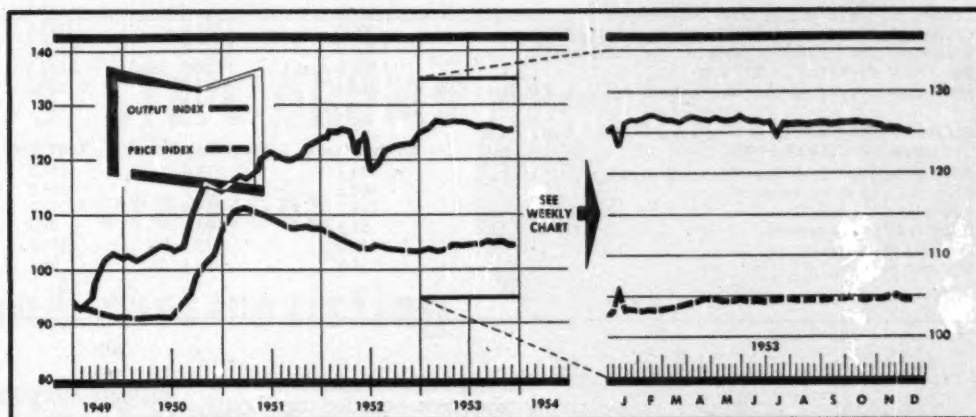
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# MARKETS . . . . .



CW Index of Chemical Output—Basis: Total Man Hours Worked in Selected Chemical Industries  
CW Price Index—Basis: Weekly Prices of Sixteen Selected Chemicals

## MARKET LETTER

One would expect the holiday season to clamp a quietus on chemical market activity, but surprisingly enough, it isn't so. Aside from the normal year-end slowdown in sales, there's still some bustle.

Price tag alterations, trade talk concerning government disposition of some rundown ammonia facilities, and industry aggravation at another agency's action makes for a rip-roaring week:

Long-bruited poser on whether or not phthalic anhydride prices would be pressured downward (CW Market Letter, Oct. 10), is answered this week. A 2¢/lb.-cut—sparked by Barrett—has just about made the rounds of tag-writers.

Factors behind the reduction: current easing in demand; greater phthalic availability. Output from Barrett's more than two years' abuilding Frankford (Pa.) plant, however—first trickle was expected late this month—may not begin hitting the market before late in the first quarter.

Lagging phthalic anhydride activity is being tabbed as one culprit responsible for shaved prices in other market arenas. Plasticizers, for instance. Late last week some makers posted 1¢/lb. lower schedules for dioctyl (DOP), di-iso-octyl (DIOP) and dibutyl phthalate.

Though last August's plastics materials price hassle isn't likely to repeat, odds are even that the competition will slice a similar amount from dicapryl phthalate tags. Traditional spread is 2¢; without a change, dicapryl is now too close.

You can check phthalic, too, as one factor in this week's lower naphthalene prices. The changes—first since late 1950—peg crude (78°) material at about 5¢/lb.; refined, tanks, at 9¾¢.

Though the new schedule doesn't quite match foreign "dumping" prices, the lower tags may have some sales-pushing appeal. Not all producers are making public announcement of the new prices, but chances are the new quotes will become standard.



## MARKET LETTER

### WEEKLY BUSINESS INDICATORS

	Latest Week	Preceding Week	Year Ago
CHEMICAL WEEK Output Index (1947=100)	124.6	124.8	125.7
CHEMICAL WEEK Wholesale Price Index (1947=100)	105.0	104.9	102.5
Bituminous Coal Production (daily average, 1,000 tons)	1,403.0	1,367.0	1,688.0
Steel Ingot Production (1,000 tons)	1,502.0 (est.)	1,900.0 (act.)	2,133.0
Stock Price Index of 13 Chemical Companies (Standard & Poor's Corp.)	269.1	264.3	260.1

### MONTHLY INDICATORS—Wholesale Prices (Index 1947-1949=100)

	Latest Month	Preceding Month	Year Ago
All Commodities (Other than Farm and Foods)	114.5	114.6	112.8
Chemicals and Allied Products	107.2	106.7	103.5
Industrial Chemicals	119.2	119.5	112.7
Drugs and Pharmaceuticals	93.5	93.5	91.9
Fertilizer Materials	112.9	112.9	111.1
Oils and Fats	58.0	53.3	53.1

Far from uniform, though, are the bids submitted by a host of companies interested in acquiring the now-boarded up Louisiana, Mo., Ordnance Works near St. Louis. Involved are ammonia facilities and the experimental coal hydrogenation and fuel synthesis station.

Revelation of the quotes spotlights a sleeper. Market speculation had tabbed National Distillers as the top bidder, but American Cyanamid—after some fine-tooth combing on the spot—comes up with two not unattractive offers. The first features a 6-year lease of the ammonia installations and all lands (but not including the fuels plant), on a rental basis amounting to \$12.60 /ton of ammonia produced with a minimum guarantee of \$327,000/year.

The second also involves leasing but tacks on an option to buy the properties within three years from some \$3,325,000.

National Distillers' top offer is \$2.5 million without the synthetic fuels plant. Trade observers hear National figured its bid was high, considered \$2.5 million (plus the added millions required to put the plant in operation) really too high for anyone else, but worth it to them. Prime reason: insurance against loss of the lush Southern fertilizer market to be served by its now-building Tuscola (Ill.) ammonia plant.

Trump card holder, however, is Hercules Powder. The builder and one-time operator (for the government), has, under conditions of the bid, a 60-day right of first refusal, may, within the two months, offer a dollar more than the top bid, or step out of the picture.

The latter move seems more likely, though no action will take place until Hercules gets more facts from Uncle Sam.

U. S. paint makers can't do a thing about the government's unloading abroad millions of pounds of extra-pure linseed oil—at a rough one-half the current domestic 17¢/lb. price.

The oil can't be sold at the cut rate in this country because the law forbids the sale of price-supported surpluses below cost. Some 77 million lbs. have already slipped by paint makers here, and there's said to be another 100 million lbs. of the prime paint ingredient still on hand that may be sold to foreigners at the 8½¢ figure.

### SELECTED CHEMICAL MARKET PRICE CHANGES—Week Ending December 21, 1953

#### DOWN

	Change	New Price		Change	New Price
Dibutyl phthalate, tanks, divd. East	\$.010	\$.33	Phthalic anhydride, works, frt. equald.	.020	.195
Diethyl phthalate, tanks, frt. alld.	.010	.34	Propyleneglycol, tanks, divd. East	.030	.145

All prices per pound unless quantity is stated.

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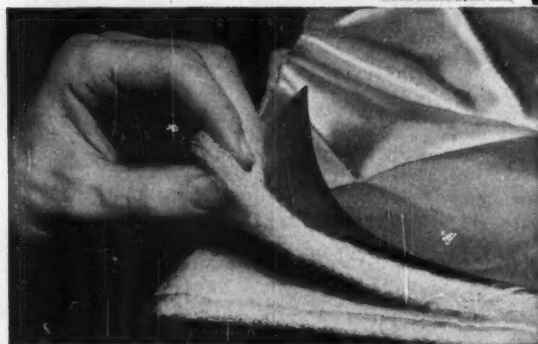


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"3-D"\* Dynel insulation made by Fiber Bond Corp., Chicago, Ill. American Anode supplies the latex only.

*Synthetic fiber coated with latex gives lots more warmth with less weight*

**T**HIS jacket you see, known as "Stratojac", is notable for its great warmth plus its light weight. That's because of the new "3-D"\* (three dimensional) Dynel insulation, a new development using American Anode latex and Dynel synthetic fiber.

Each strand of Dynel is coated with American Anode latex and fluffed into insulation that has these amazing properties. Besides being lighter than wool and warmer, it

is tough. It can be crushed, sat on, rumpled and comes back as good as new. Not harmed by dry-cleaning solvents. It has fine "hand" and won't mat ever. This insulation can also be used in pillows, as packaging material, with many more uses.

Finding the right material to help do this job is typical of American Anode's approach to many problems. For American Anode materials and techniques have helped produce such successes as decon-

tamination boots, dust-proof helmets, a method for printing on rubber, foam pads for truck seats and a host of other products used in industry and the home. Perhaps an American Anode latex, resin paste or other material can point the way to the development of a saleable idea or the improvement of a product for you. We'll help with technical advice. Please write Dept. AA-13, American Anode, 60 Cherry Street, Akron, Ohio.

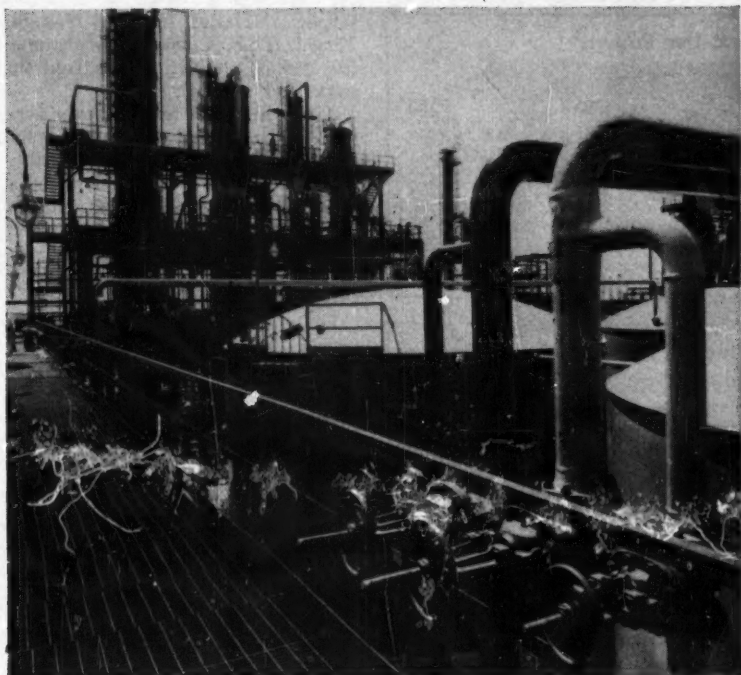
\*Trade Mark

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MORE MARKET ADVERTENCE THAN ADDITION: National Petro's 40 million gal.

## Year of the Scramble

By this week marketers in most segments of the chemical process industries are swivel-necking at the past, trying to dope out the future. The majority, too, would be satisfied to lift the veil just a little, take a quick peek at what's to happen in the next few months.

So it is with producers of ethyl alcohol—both synthetic and fermentation. For the ethanol market picture has been lately brushed by some clouding economical occurrences:

- Elimination of a prime alcohol outlet—the Reconstruction Finance Corp.'s synthetic rubber program;
- Over- and under-the-counter price bargaining;
- Practically complete switching of major fermentation alcohol producers to some tie-ins with synthetic facilities;
- The far from uncomplicated blackstrap molasses outlook.

One towering fact, obvious even to a casual ethanol market observer, is the manipulating effect molasses has had, is having, and likely will have on the important solvent's production methods.

Just prior to World War II, some 72% of the ethyl alcohol turned out in the U.S. stemmed from molasses; about 21% was synthetically produced and the balance came from grain,

other materials. The use ratio between the sugar- and the petroleum-rooted alcohol has fluttered violently over the ensuing years, has by this year reached about a 61%-34% ratio in favor of the synthetic.

Only one company, Publicker (Phila.), has been able to weather the extreme over-the-years' fluctuation of blackstrap prices (from a low 4¢/lb. to a high 36¢ at times) and the increasing synthetic alcohol outpouring.

Concomitantly spotlighting the nonsynthetic makers' shutting down and stepped-up synthetic production is National Petro-Chemical's 40-million gal. plant at Tuscola, Ill. Bulk of the ethanol will go to ex-customers of ex-fermentation producers Du Pont and Commercial Solvents. Part, too, will be siphoned off by U.S. Industrial Chemicals—a division of National Distillers, which owns the major share of the Tuscola installation.\*

Published reports a few weeks ago pegged this additional capacity as the reason behind the reduction in ethyl alcohol price tags. But it's fairly clear that the amount headed for the open market from National Petro will exert little influence on the supply. More likely culprits in the recent price-

\* In conjunction with Panhandle Eastern Pipe Line.

easing: the general slackening in sales of chemicals that normally gobble ethanol, foreign imports, some bare-clawed competition. Today, though, most sellers are optimistic about the immediate future, are sensing a decided perking-up in demand from alcohol consumers. Makers would be glad to sell a lot more than they're now selling.

**Consumption Contortions:** Consumption pattern of alcohol has changed drastically since 1951, the year of Korea. At that time some 344 million (wine) gallons were utilized. Use hopped down to about 273 million gallons last year; for this year it's estimated to level out at some 261 million. Next year the gulping is likely due for another downward shove.

A glance at the end use table clearly indicates the pattern distorter—synthetic rubber requirements.

Next year's breakdown will not likely contain a consumption figure for the first listed outlet. Government-owned plants using ethyl alcohol were closed this past fall and a program is under way to dispose of all RFC rubber facilities. Alcohol butadiene installations, of course, comprise only a small part of the nation's total synthetic rubber properties. Prime reason: production of ethanol-derived butadiene is far more expensive than production directly from petroleum products.

That's one reason, too, observers are wont to point out, that makers might just as well write off rubber as a future alcohol outlet. It's doubtful whether competitive private industry or the government would care to shell out the higher costs. Another worldwide blowup, though, could well bring about reactivation of the units—war is traditionally a "hang-the-cost" time if the need is there.

**Supply/Demand No Problem:** Thus with the petering out of synthetic rubber's alcohol requirements, and the unlikelihood that the chemical industry will surpass 1953's high consumption rate, it looks as if U. S. needs will not top 220-230 million gal.

It's a startling coincidence that total U.S. synthetic alcohol capacity will hit a like 230 million gal. during 1954. Part of this can be checked off to Enjay's expansion. Though the Standard Oil outfit's new capacity is not picayune (18-20 million gal.), the company is still not rated as a full-fledged producer. Lacking at the moment are operating denaturing facilities. That deficiency, however, will be remedied within the next month or so. It's a safe bet, too, that Stand-

### Ethyl Alcohol End Use Pattern (million wine gallons)

Utilization	1951	1952	1953
Synthetic rubber	120.6	67.9	40.0
Solvents, aldehydes, other chemical products	201.1	186.8	201.2
Tax paid withdrawn	18.1	11.4	13.0
Completely denatured al- cohol, misc.	4.0	7.0	7.0

### U. S. Utilization of Industrial Molasses (million gallons)

	1951	1952	1953	1954
Ethyl alcohol	151.7	158.8	195.0	150.0
Livestock feed, direct feeding, silage	248.7	300.4	341.0	380.0
Other (yeast, citric acid, vinegar, etc.)	59.0	60.0	63.0	64.0

ard's output—in line with the rest of the industry—will fall some 30-40% short of capacity.

One rippet-producing topic in ethanol circles is the niche that fermentation material will occupy in the future. In the past the unstable, sticky molasses situation has been the main reason for the squeezing out of most nonsynthetic makers. Currently—and likely to maintain its stiff-backed resistance to the trend—is the one-time top ethyl alcohol producer, Publicker Industries. And bolstering Publicker's chances to continue as the sole synthetic-bucker are tremendous molasses—and alcohol—storage facilities. More than once this storage capability has given the company an edge in raw material procurement—enabling it to write its own alcohol price tags regardless of what others were doing.

There's little doubt, though, that the government's admitted paternalistic concern about the problems confronting molasses producers and its efforts to encourage higher-than-alcohol-profit outlets (feed supplement, for example), has—and will have—an effect on molasses-made alcohol.

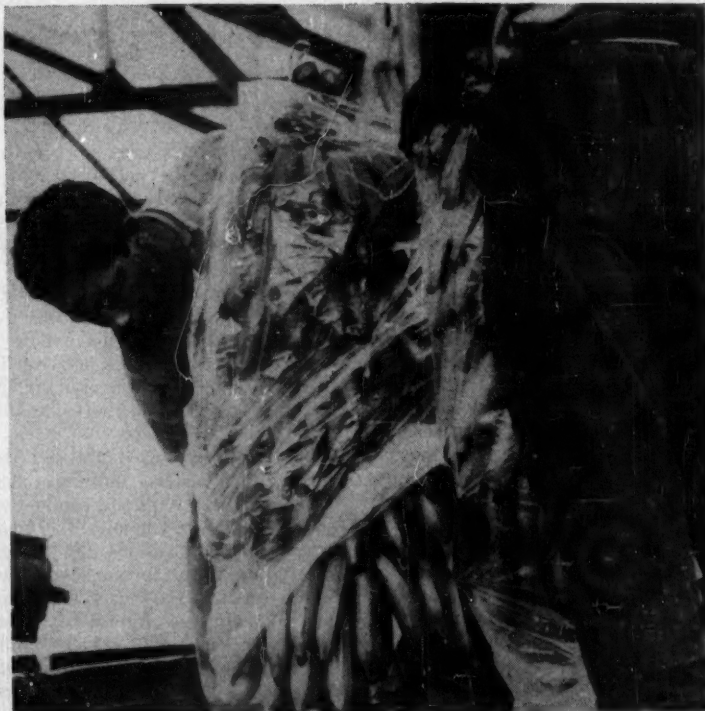
Note the comparison of major molasses-funneling over the past few years—and the estimate for 1954 use.

The molasses supply available in the U.S. was abnormally large in 1953. Reason: the late sale of Cuba's 1952 crop. It's been estimated that of the 302 million gal. to be supplied by Cuba this year, some 162 million represents carry-over of the old crop. At that time Cuba literally adopted a two-price system to dispose of her

surplus. Molasses for feed brought 7¢/gal. (f.o.b. Cuba), while material for alcohol production was sold for settlement at about 4½¢.

Next year—with no carry-over supplies—Cuba's contribution to the available molasses pot will probably not exceed 180 million gal. To this anticipated cut in supplies, add a stepped-up feed usage promotion and it becomes apparent that the fermentation alcohol producer's problems may be compounded.

On the other hand, all is not peachy in the synthetic field. The competitive pushes—once aimed almost exclusively at fermenters—are now assuming the characteristics of some dogged intraindustry elbow-digging. For with the expected shrinking of ethanol outlets, the identical price tags on both types of alcohol and increasing productive capacity this much seems certain: 1954 will be tabbed as the Year of the Big Scramble.



## Polyethylene Pullover

BANANAS are taking on a new look this week, and polyethylene could be taking over a newly created market. Latest fashion dictum from South America foresees polyethylene pullovers for traveling

bunches of bananas (above).

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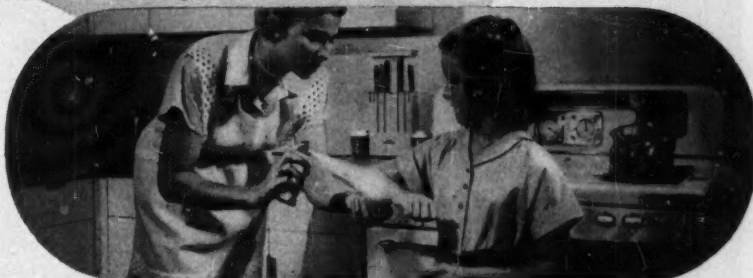
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NATIONAL DAIRY RESEARCHER: He's returning to tradition.

## Shifting the Emphasis

Bucking the trend of industrial research expansion, sprawling National Dairy Products Corp. last week trimmed 50 names off the personnel roster of subsidiary National Dairy Research Laboratories, Inc. Prompted, in part, by the promise of operating economies, the layoffs reflect sweeping changes in the company's research organization and philosophy.

After a brief sally into new research waters, National Dairy is trimming its sails for a return to the snug harbor of traditional technical activities.

Research, formerly carried on by seven divisions, is now in the hands of four groups set up along conventional dairying lines. Responsibilities of the new quartet: milk and ice cream; animal feeds; chemical products; fundamental studies. Under the discarded system, research was broken down by scientific function into seven divisions: analytical; biochemical; general chem-

ical; micro-biological; nutritional; engineering; and dairy technology.

National Dairy reports that only about 1/3 of the discharged group is scientific personnel; the remainder is nontechnical help. In the main, discharged researchers were drawn from most of the seven divisions. Only the group concerned with rumen bacteriology was completely eliminated. Result: although only one activity has been amputated, there will be a general de-emphasis of many previous lines of activity. Never very large, the company's chemical business will surely feel the slack off.

**Two-Way Push:** Instituted several years ago, the old research program tied in with the company's efforts to diversify its operations, get into fields yielding higher profit margins than the huge-volume milk and ice cream business. On the one hand, National Dairy built new laboratories and a strong

scientific staff to probe potential new areas of activity; on the other, it entered a bid for pharmaceutical manufacturing Schering Corp., then in the hands of the Alien Property Custodian.

Although never openly stated, the research shake-up reflects a change of attitude that is traced by some to the recent change in the company's top management. Their logic: new president E. E. Stewart, an old-line "milk" man, isn't holding with the base-broadening effort; the cutback is a result of a top-management desire to lop off the "frills," get back to traditional dairying activities.

But there's another aspect of the situation that merits consideration for its timing. The day of the cut-rate excess-profits research dollar is just about gone. It isn't too hard to spot the economic reasoning behind a shift from long-range research to quick-payoff development work. By the same token, neither is it difficult to understand why this approach has more attackers than defenders.

## Premature Verdict?

Despite a growing dossier of seemingly incriminating evidence, cigarettes cannot now be summarily convicted of causing lung cancer. But last week the cancer case against cigarettes gained fresh impetus from a brace of strongly worded medical reports. Producers of the flood of chemicals gulped each year by the huge tobacco industry watched with more than passing interest as the damaging testimony unfolded before the 29th annual Greater New York Dental Meeting.

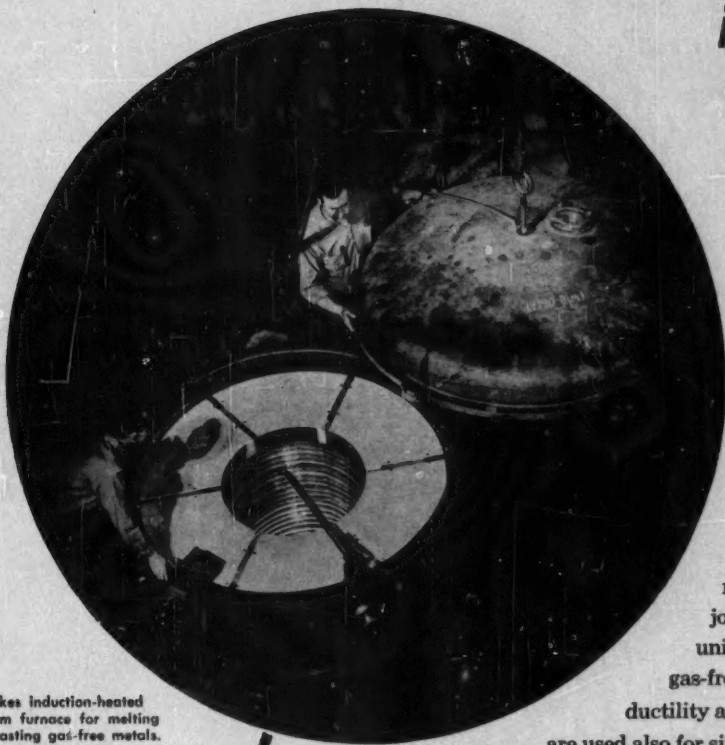
Citing independent studies of 5,000 lung cancer patients here and abroad, Dr. Ernest Wynder, of Memorial Center for Cancer and Allied Diseases, concluded: "... The prolonged and heavy use of cigarettes increases up to 20 times the risk of developing cancer of the lung." His disconcerting message, moreover, came on the heels of a sharp expression of professional anxiety by Dr. Alton Ochsner, chairman of surgery at Tulane University's School of Medicine.

Medical men, Ochsner revealed, are "extremely concerned about the possibility that the male population of the United States will be decimated ... in another 50 years if cigarette smoking increases as it has in the past, unless some steps are taken to remove the cancer-producing factor in tobacco."

Ochsner admitted that the "cancer-

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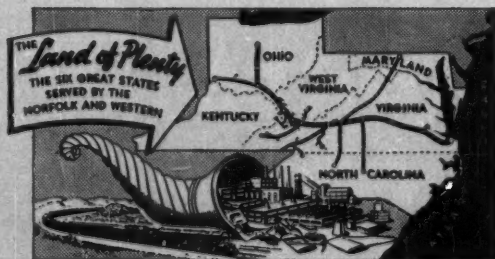
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## RESEARCH. . . . .

producing factor" in tobacco is not known, but appears to be a constituent of tobacco tars.

**Implication:** Though not stated in so many words, another method of preserving the male population was implicit in the Tulane surgeon's message: elimination—or at least drastic reduction—of cigarette smoking. And it doesn't take a medical man to realize the likely effect of this implication on the publicity-sensitive tobacco business.

Whatever the outcome, it will affect the chemical industry. Emphasis on the health aspects will spur research on chemical treatments of tobacco and tobacco-growing soil to remove nicotine and tars; and it will boost the use of chemical filters—cellulose, silica gel, etc. Moreover, a decline in cigarette consumption will knock a prop out from sales of humectants and other chemical components.

Close on the heels of the somber reports, tobacco stocks tumbled nearly four points on the New York Stock Exchange. Commented the financial page of the *New York Times*: "The sharp dip, which carried the stocks of the 'Big Five' brands to new lows for the year, was the climax to a general decline that has continued for several weeks despite the repeated advice of brokerage houses that the shares were good buys."

Surprisingly, tobacco companies seemed to be in no haste to re-form their battered lines. Only E. A. Darr, president of Reynolds Tobacco Co., replied to an Associated Press poll of four big tobacco names (Reynolds, American Tobacco, Liggett & Meyers, Philip Morris). Darr, like Harris Parmele—research director for P. Lorillard Co.—before him, claimed there is no real evidence that cigarettes cause lung cancer.

**More Evidence Needed:** Support for this position comes from Yale biometrist\* E. Cuyler Hammond, director of statistical research for the American Cancer Society. Hammond, conducting a study of 204,000 smokers, says his data does not yet warrant even a preliminary analysis of the relationship between cigarette smoking and cancer.

And he leaves little doubt of where he stands on previous studies in the field. Reveals Hammond: "Certain investigators, including myself, are not completely convinced as to the validity of the results, in spite of the fact that a number of independent studies conducted in more or less the same way led to more or less the same apparent conclusions."

\* Biostatistician.

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## RESEARCH . . . . .

Hammond's final report, due in 1955, will go a long way toward deciding the highly charged issue. But whether any statistical study can conclusively settle the hassle is very much open to dispute. In the opinion of many, anything short of irrefutable laboratory evidence will generate considerably more heat than light.

**Synergist Search:** Chlorobenzamides and dinitroanilines are the latest materials to come under the searching gaze of Dept. of Agriculture synergist probes. Bureau of Entomology and Plant Quarantine researchers Mitlin, Certler and Gersdoff screened a series of substituted 2,4-dinitroanilines and *o*-chlorobenzamides for synergistic action in allethrin fly sprays, report 12 effective synergists. Only three of the dozen were able to double allethrin's toxicity. They are: N-amyl-2,4-dinitroaniline; N-amyl-*o*-chlorobenzamide;

N-sec-amyl-*o*-chlorobenzamide. Tests were made on laboratory-reared adult houseflies with sprays containing 0.5 mg. of allethrin (or 2.5 mg. when solubility is low) and 5 mg. of test compound per milliliter. An acetone-kerosene mixture was the solvent. Since acetone itself causes high knock-down only mortality data were taken as a measure of effectiveness.

**Research Import:** Union Carbide and Carbon Corp. has just retained European Research Associates, S. A. (Brussels, Belgium) to conduct research on a consulting basis. Behind the move, according to Carbide, is the belief "that [an] . . . international laboratory working in a very broad field will create an atmosphere favorable to the development of fundamentally new principles and processes, having important industrial applications." In addition to carrying out Carbide-



## Coffee and Phthalocyanines

IF YOU ASSUME that this group is gathered together for good cheer, you are half right. Charter members of the newly formed New York Pigment Club, the chemists and engineers shown above are hearing the latest word on phthalocyanines from pigment research expert Robert Brouillard of General Aniline Works Div. (General Aniline and Film Corp.). Organized by technical personnel in the pig-

ment industry, the new group is primarily concerned with keeping its members informed of new developments in the research and manufacture of both organic and inorganic colors. At the latest New York City dinner meeting, Brouillard underscored advances in the quest for a phthalocyanine red, revealed research beamed at such nonpigment uses as oxidation catalysts, grease additives.



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## RESEARCH . . . . .

sponsored research in its own laboratories, the Belgian organization will support selected fellowships at European colleges and universities.

**Enviably Record:** Not to be outdone by its company's production workers, Phillips Petroleum Co.'s Bartlesville research division has posted an enviable safety record of its own. Earlier this month, reports Phillips, the division's 366 employees completed 4 million consecutive manhours of work without a disabling injury. It's a new high among Phillips units.

**In the Swim:** Chas. Pfizer & Co. continues to keep pharmaceutical men guessing about its newly commissioned hydrocortisone process. The Brooklyn (N. Y.) firm claims it is "the most economical process in use today," reveals only that it's a fermentation technique utilizing steroids obtained from the Mexican yam. Syntex, S. A., (Mexico) supplies the steroid intermediates.

**Ready for Service:** Standard Oil Co. (Indiana) has just put the finishing touches on research and engineering facilities at its Sugar Creek (Mo.) refinery. Housed in a three-story brick building the new facilities accommodate 70 research and engineering staffers. Unusual feature of the layout: a parking lot at each of the three floor levels, made possible by the hillside location of the site.

**Developer Speeder:** A new time-saving method for developing film is the latest product of research at Eastman Kodak (Rochester, N. Y.) The technique, still in the experimental stage, reportedly utilizes a vanadium compound as developer and an electrolytic cell to maintain developer activity. Function of the cell: to regenerate the developer, preclude the necessity of adding fresh developer to weakened solutions. Added advantage: the new developing agent, avers Eastman researchers, retains considerable activity at low temperatures.

**Sense Sharpener:** Industrial researchers in the New York City area will be able to learn the fundamentals of sensory panel testing at an evening New York University course to be offered next spring. The course, reports NYU, is designed for laboratory, production, administrative and control personnel, includes a review of organoleptic methods of solving problems that stymie conventional analysis. National Biscuit's Jack Krum is slated to be course mentor.

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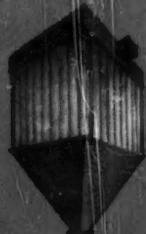
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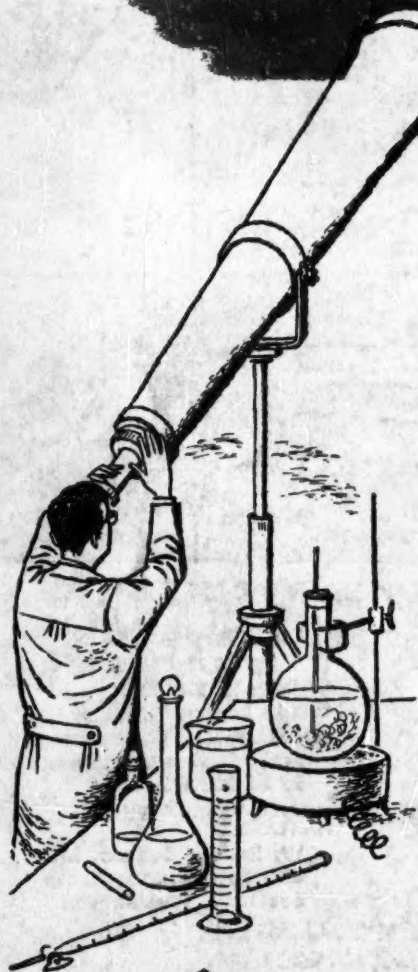
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